SHARP

1 BIT TECHNOLOGY

ENGLISH

Please refer to pages E-1 to E-62.

ESPAÑOL

Consulte las páginas S-1 a S-62.

中文

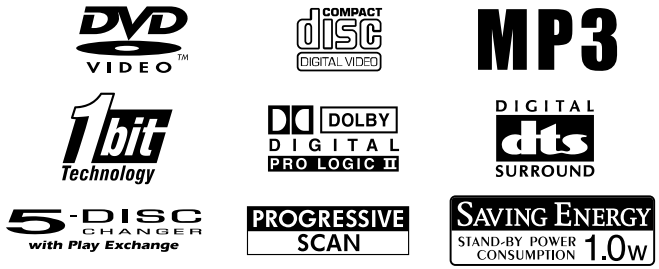
請參照第中-**1**至中-**62**頁。

1-BIT DIGITAL HOME THEATER WITH DVD
SISTEMA 1-BIT PARA HOME CINEMA CON DVD
1-BIT DVD 數位家庭劇院組合

MODEL
MODELO
機型

SD-AS10W

OPERATION MANUAL
MANUAL DE MANEJO
使用説明書



SHARP CORPORATION

Introduction

Thank you for purchasing this SHARP product. To obtain the best performance from this product, please read this manual carefully. It will guide you in operating your SHARP product.

SD-AS10W 1-Bit Digital Home Theater with DVD consisting of SD-AS10W (main unit and amplifier unit), CP-AS10WF (front speakers), CP-AS10WC (centre speaker), CP-AS10WR (surround speakers) and CP-AS10WSW (subwoofer).

Icons used in this operation manual

Some functions may not be available depending on discs. The following icons indicate the discs that can be used in the section.

- DVD ... DVD-Video discs and DVD-R/DVD-RW.
- SVCD ... Super video CDs.
- VCD ... Video CDs.
- CD ... Audio CDs.
- MP3 ... CD-R/CD-RW with MP3 recording.
- WMA ... CD-R/CD-RW with WMA recording.
- JPEG ... CD-R/CD-RW with JPEG recording.

Special notes

WARNING

- When the ON/STAND-BY button is set at STAND-BY position, mains voltage is still present inside the unit. When the ON/STAND-BY button is set at STAND-BY position, the unit may be brought into operation by the timer mode or remote control.
- This unit contains no user serviceable parts. Never remove covers unless qualified to do so. This unit contains dangerous voltages, always remove mains plug from the socket before any service operation and when not in use for a long period.
- To prevent fire or shock hazard, do not expose this appliance to dripping or splashing. No objects filled with liquids, such as vases, should be placed on the apparatus.

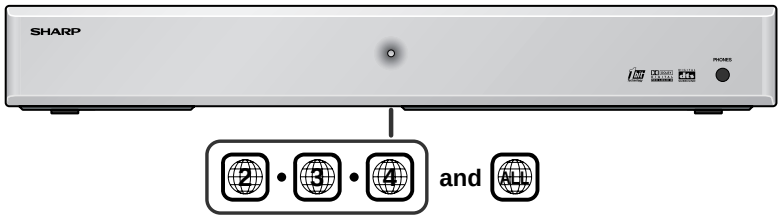
"DTS" and "DTS Digital Surround" are registered trademarks of Digital Theater Systems, Inc.

Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.

This product is classified as a CLASS 1 LASER product.

The letters in brackets contained in the model number indicate the colour of the product only. Operation and specifications are unaffected.

Types of playable DVD discs vary depending on the region. This unit can play back only DVDs with the region number shown on the bottom of the unit or with "ALL".



Accessories

Please confirm that the following accessories are included.

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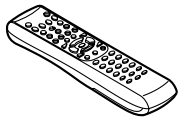
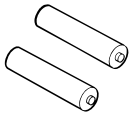
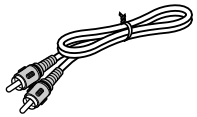
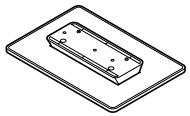
<tr>
<td> 
Remote control × **1**</td>
<td> 
"AA" size battery (UM/SUM-3, R6, HP-7 or similar) × **2**</td>
<td>
System connection cable × **1**</td>
<td> 
Video cable × **1**</td>
<td colspan="3"> 
Main unit stand × **1**</td>
</tr>
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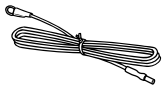
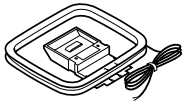
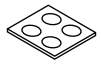
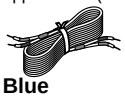
<td> 
FM aerial × **1**</td>
<td> 
AM loop aerial × **1**</td>
<td>
Button name label × **1**</td>
<td rowspan="2">
White
(for left front speaker)
approx. 5 m (16 feet)</td>
<td rowspan="2">
Green
(for centre speaker)
approx. 5 m (16 feet)</td>
<td rowspan="2">
Red
(for right front speaker)
approx. 5 m (16 feet)</td>
</tr>
<tr>
<td colspan="2"> 
Main unit leg cushion × **4**</td>
<td>
Non-slip sheet for speakers × **20**</td>
</tr>
<tr>
<td colspan="3"></td>
<td>
Purple
(for subwoofer)
approx. 5 m (16 feet)</td>
<td> 
Blue
(for left surround speaker)
approx. 15 m (49 feet)</td>
<td>
Grey
(for right surround speaker)
approx. 15 m (49 feet)</td>
</tr>
<tr>
<td colspan="3"></td>
<td colspan="3">**Speaker wire** × **6**</td>
</tr>
</table>

Note:
Only the above accessories are included.

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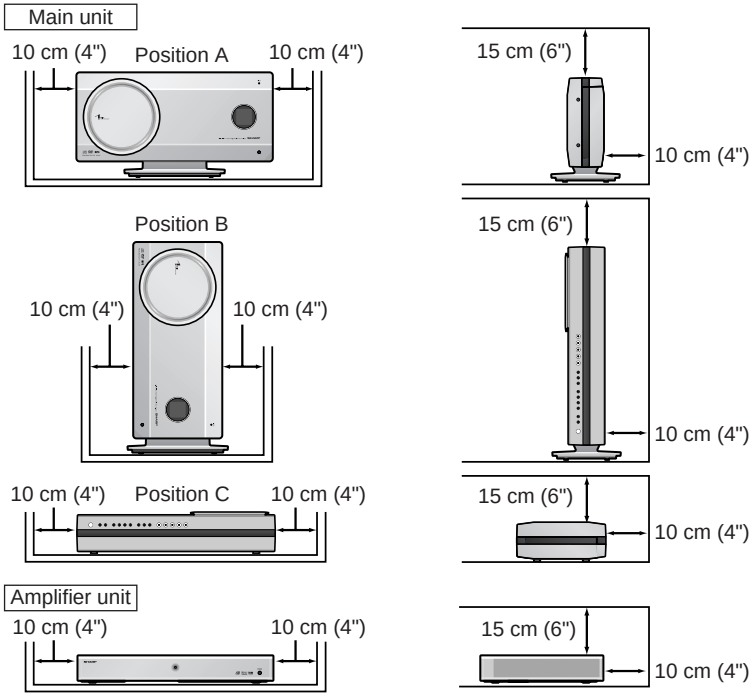
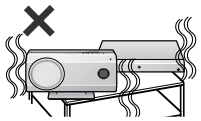
Precautions

■ General

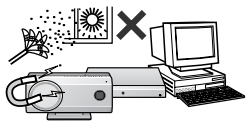
- Please ensure that the equipment is positioned in a well ventilated area and that there is at least 10 cm (4") of free space along the sides and back. There must also be a minimum of 15 cm (6") of free space on the top of the unit.



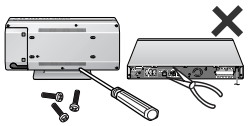
- Use the unit on a firm, level surface free from vibration.



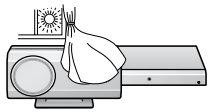
- Keep the unit away from direct sunlight, strong magnetic fields, excessive dust, humidity and electronic/electrical equipment (home computers, facsimiles, etc.) which generate electrical noise.



- Do not place anything on top of the unit.
- Do not expose the unit to moisture, to temperatures higher than 60°C (140°F) or to extremely low temperatures.
- If the unit does not work properly, unplug and plug it in again. Then turn on the unit.
- In case of an electrical storm, unplug the unit for safety.
- Hold the AC power plug by the head when removing it from the wall socket, as pulling the lead can damage internal wires.
- **Do not remove the outer cover, as this may result in electric shock. Refer internal service to your local SHARP service facility.**



- The ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths, curtains, etc.
- No naked flame sources, such as lighted candles, should be placed on the apparatus.



- Attention should be drawn to the environmental aspects of battery disposal.
- This unit should only be used within the range of 5°C - 35°C (41°F - 95°F).

Warning:
The voltage used must be the same as that specified by this unit. Using this product with a higher voltage other than that specified is dangerous and may result in a fire or other types of accident, causing damage. SHARP will not be held responsible for any damage resulting from the use of this unit with a voltage other than that specified.

■ Volume control

The sound level at a given volume setting depends on speaker efficiency, location, and various other factors. It is advisable to avoid exposure to high volume levels. Do not turn the volume on to full at switch on and listen to music at moderate levels.

Description of discs

■ Types of playable discs

The unit can play back discs bearing any of the following marks:

DVD		
DVD-Video Disc	DVD-R	DVD-RW
	Recorded in the video mode (*)	Recorded in the video mode (*) Discs recorded in VR mode (Video Recording format) cannot be played back.

Some DVD discs may not function as described in the manual. See the disc jacket for restrictions.

Video CD	
Super Video CD	Video CD

CD		
Audio CD	Audio CD-R	Audio CD-RW
	Or CD-R recorded in MP3/WMA/JPEG format (*)	Or CD-RW recorded in MP3/WMA/JPEG format (*)

(*) Some discs may not play properly due to the status of the equipment used for recording, characteristics of the discs, scratches, dirt, or dirty optical pickup lens.

- 8 cm (3") discs are not supported (disc adaptor cannot be used).

■ Discs that cannot be played

- DVDs without the region number "2", "3", "4" or "ALL".
- DVDs with SECAM system
- DVDs with MPEG sound
- DVD-ROM
- DVD-RAM
- DVD-Audio
- SACD
- CDG
- Photo CD
- CD-ROM
- Discs recorded in special formats, etc.

Notes:

- The discs above cannot be played at all, or no sound is heard although images appear on the screen or vice versa.
- Faulty playback may damage the speakers and can have an adverse effect on your hearing when played at high volume settings.
- You cannot play illegally produced discs.

■ DVD-Video

A popular type of DVD disc of the same size as a CD, mainly containing video images.

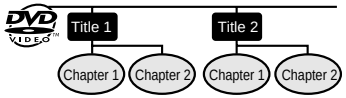
Region number

DVD discs are programmed with region numbers indicating countries in which they can be played. This unit can play discs with region number "2", "3", "4" or "ALL".

Region number
(playable area number)

Title and chapter

DVD-Video discs are divided into "titles" and "chapters". If the disc has more than one movie on it, each movie is a separate "title". "Chapters" are subdivisions of titles.



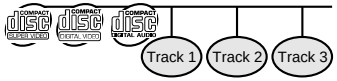
■ DVD-R/DVD-RW playback

- You can play DVD-R and DVD-RW discs recorded in the video mode.
- **Before playing DVD-R/DVD-RW discs with this unit, finalize them with the equipment used for recording.**

■ Super video CD/video CD/CD

Track

Super video CD/video CD and audio CD are composed of "tracks". Tracks are equivalent to songs on a CD.



■ MP3/WMA/JPEG format on CD-R/CD-RW

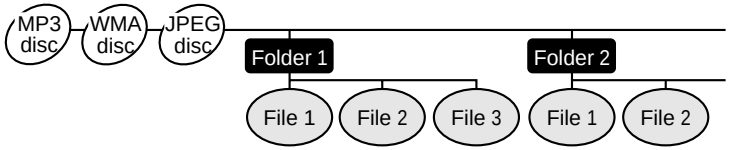
An MP3 file is an audio data compressed in the MPEG 1 audio layer 3 format. MP3 files have the extension ".mp3". (Files with the extension ".mp3" may not play, or noise may occur during playback if not recorded in the MP3 format.)

WMA is an audio file format developed by Microsoft with the ".wma" extension. This type of audio file is recorded through Microsoft Windows operating system.

A JPEG file is still image data compressed in the JPEG (Joint Photographic Experts Group) format. JPEG files have the extension ".jpg".

Folder and file

MP3/WMA/JPEG discs consist of "folders" and "files".



■ Icons used on DVD discs

Check the icons of the DVD jacket before playing your discs.

Display	Description
Format recorded on the DVD 4:3 16:9 LB 16:9 PS	Select a type according to the connected TV type.
Type of subtitles recorded Example: 1: English 2: German	Recorded subtitle languages. You can select a subtitle language.
Number of camera angles	Number of angles recorded on the DVD. You can view scenes from different angles.
Number of audio tracks and audio recording systems Example: 1: Original <English> (Dolby Digital 5.1 Surround) 2: German (Dolby Digital 2 ch)	The number of audio tracks and audio recording systems are indicated. ● You can change the audio language. ● Audio and recording system vary depending on the DVD. Check them in the DVD's manual.

Copyright Information:

- Unauthorised copying, broadcast, public display, transmission, public performance and rental (regardless of whether or not such activities are for profit) of disc contents are prohibited by law.
- This system is equipped with copy protection technology that causes substantial degradation of images when the contents of a disc are copied to a videotape.

Copy Protection:

This unit supports Macrovision copy protection.
On DVD discs that include a copy protection code, if the contents of the DVD disc are copied using a VCR, the copy protection code prevents the videotape copy from playing normally.

Apparatus Claims of U.S. Patent Nos. 4,631,603, 4,577,216, 4,819,098 and 4,907,093 licensed for limited viewing uses only.

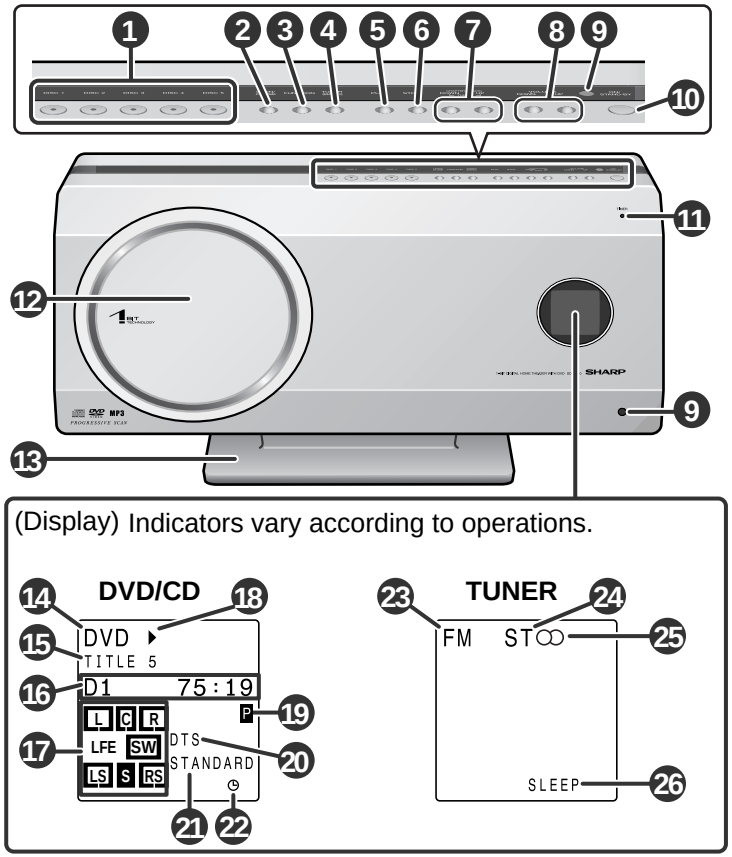
This product incorporates copyright protection technology that is protected by method claims of certain U.S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners.
Use of this copyright protection technology must be authorized by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision Corporation.
Reverse engineering or disassembly is prohibited.

Note:

Supply of this product does not convey a license nor imply any right to distribute content created with this product in revenue-generating broadcast systems (terrestrial, satellite, cable and/or other distribution channels), revenue-generating streaming applications (via Internet, intranets and/or other networks), other revenue-generating content distribution systems (pay-audio or audio-on-demand applications and the like) or on revenue-generating physical media (compact discs, digital versatile discs, semiconductor chips, hard drives, memory cards and the like). An independent license for such use is required. For details, please visit http://mp3licensing.com.

MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.

Controls and indicators



■ Main unit

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1. Disc Number Select Buttons 21, 23
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3. Function Button 55
4. Tuner (Band) Button 37
5. Play Button 23
6. Stop Button 21, 24
7. Chapter (Track) Skip Up and Down, Search or Tuning Up and Down buttons 25, 37
8. Volume Up and Down Buttons 19
9. Remote Sensor 18
10. On/Stand-by Button 18
11. Timer Set Indicator 50
12. Disc Compartment 21
13. Main Unit Stand 12

14. Function Indicator 27
15. Track, Title, Chapter, Total Information Indicator 27
16. Time and Present Disc Indicator 27
17. Speaker Indicators 41
18. Operation Indicator 27
19. Progressive Scan Mode Indicator 24
20. Audio Signal Indicator 41
21. Surround Indicator 27
22. Timer Indicator 51

23. Tuner (Band) Indicator 37
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25. FM Stereo Receiving Indicator 37
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27. S-video Output Socket 16
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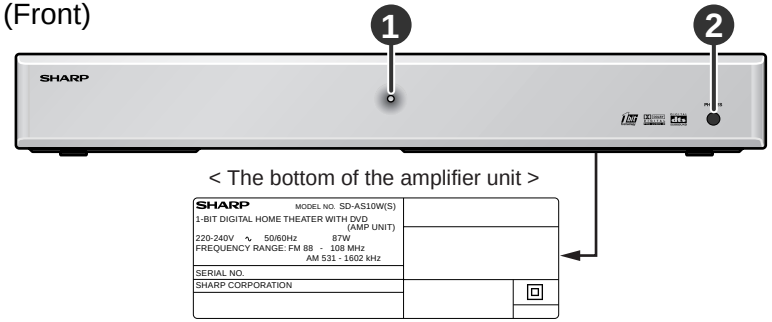
29. Component Video Output sockets 16
30. Video Output Socket 16
31. Side Cover 14, 16

Notes:

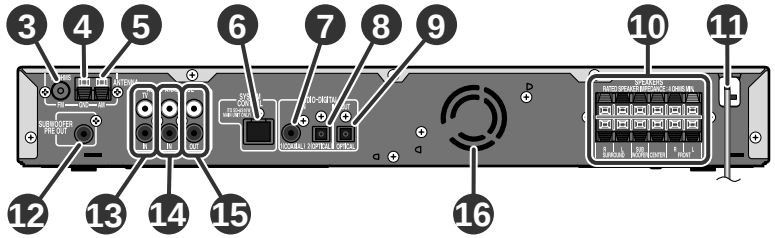
- Make sure to attach the main unit stand (see page 12).
- To remove the side cover, see page 14.

■ Amplifier unit

(Front)



(Rear)



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1. Power Indicator 18
2. Headphone Socket 57
3. FM 75 Ohm Aerial Socket 14
4. AM Aerial Earth Terminal 14
5. AM Aerial Terminal 14
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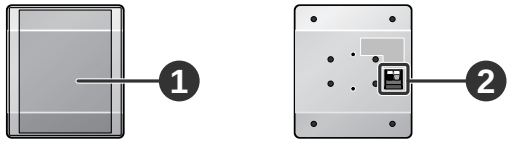
(Connect a commercially available subwoofer with a built-in amplifier.)

13. TV Audio Input Sockets 55
14. VCR Audio Input Sockets 55
15. VCR Audio Output Sockets 55
16. Cooling Fan 24

■ Front/surround speakers

(Front) (Rear)

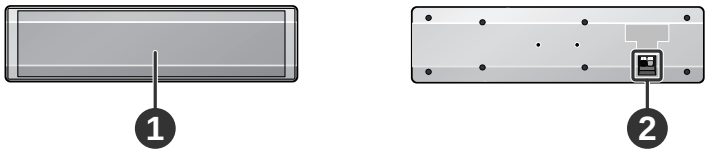


Reference page

1. Speaker
2. Speaker Terminals 15

■ Centre speaker

(Front) (Rear)

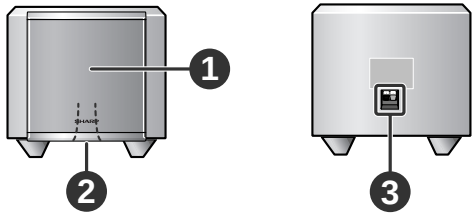


Reference page

1. Speaker
2. Speaker Terminals 15

■ Subwoofer

(Front) (Rear)



Reference page

1. Woofer
2. Bass Reflex Duct
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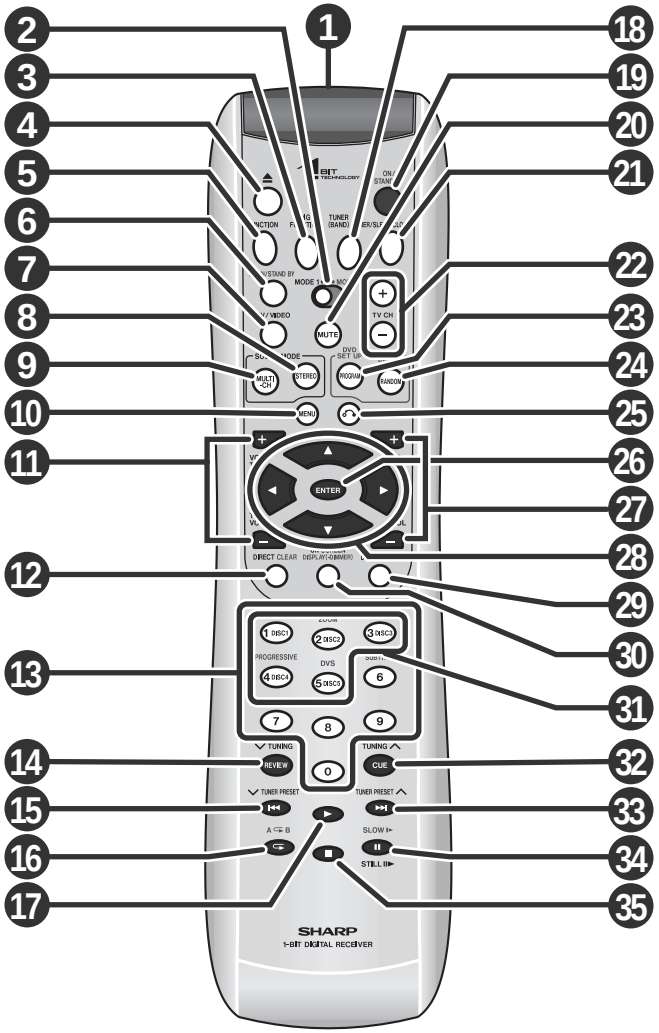
Controls and indicators (continued)



■ Remote control

Set the MODE 1/MODE 2 switch to MODE 1 and press the following buttons.

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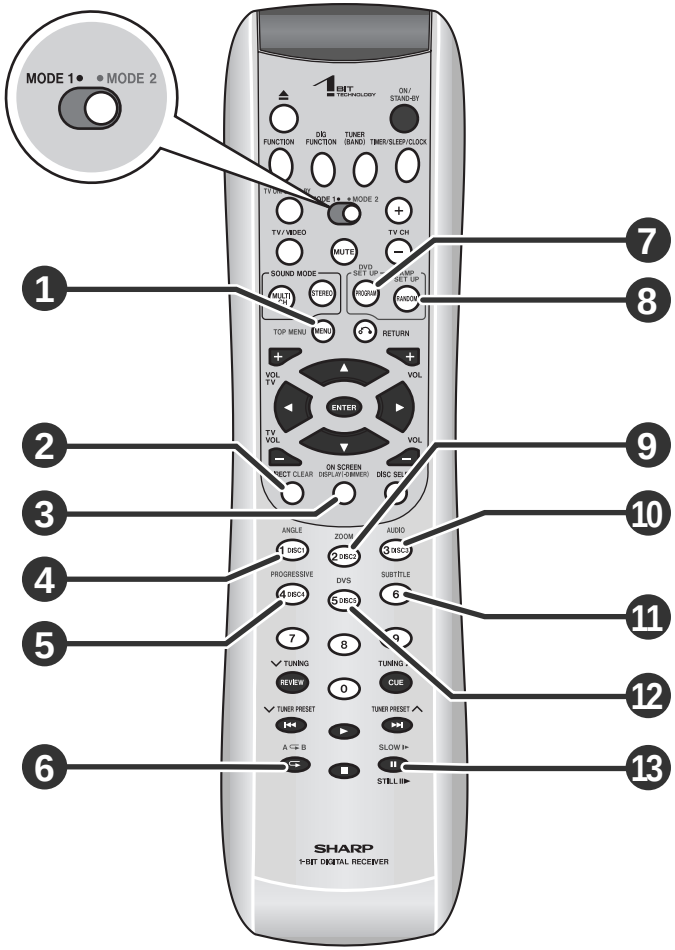
1. Remote Control Transmitter 18
2. MODE 1/MODE 2 Switch 10
3. Function Select Button (DIG1/DIG2) 55
4. Disc Compartment Open/Close Button 21
5. Function Select Button (TV/VCR) 55
6. TV On/Stand-by Button 53
7. TV/Video Select Button 53
8. Stereo (2 channel) Select Button 39
9. Multi Channel Select Button 39
10. Menu or Playback Control On/Off Button 28, 32
11. TV Volume Up and Down Buttons 53
12. Direct Select Button 26, 32
13. Direct Number Buttons 26, 32
14. Review/Tuning Down Button 25, 37
15. Chapter (Track) Skip Down/Tuner Preset Down Button 25, 38
16. Repeat Play Button 30
17. Play Button 23
18. Tuner (Band) Button 37
19. On/Stand-by Button 18
20. Mute Button 19
21. Timer/Sleep/Clock Button 20, 50, 52
22. TV Channel Up and Down Buttons 53
23. Programme Button 33, 35
24. Random Play Button 32
25. Return Button 31, 43
26. Enter Button 20
27. Volume Up and Down Buttons 19
28. Cursor Buttons 20
29. Disc Select Button 21, 23
30. On Screen Button 27
31. Disc Number Select Buttons 21, 23
32. Cue/Tuning Up Button 25, 37
33. Chapter (Track) Skip Up/Tuner Preset Up Button 25, 38
34. DVD Still Frame Advance/Disc Pause Button 24, 26
35. Stop Button 21, 24



■ Remote control

Set the MODE 1/MODE 2 switch to MODE 2 and press the following buttons (indicated in blue). Available operations change.

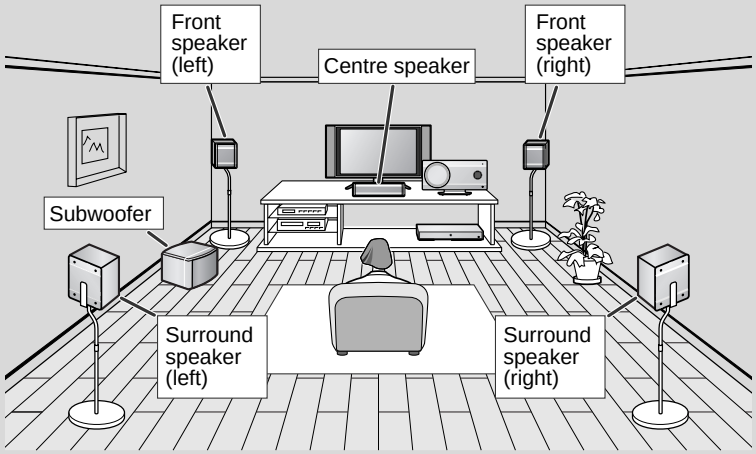
Reference page

1. **DVD Top Menu Button** **28**
2. **Clear Button** **38**
3. **Display (Dimmer) Button** **19, 27**
4. **DVD Angle Button** **29**
5. **Progressive Scan Mode Select Button** **24**
6. **A - B Repeat Button** **30**
7. **DVD Setup Button** **45**
8. **Amplifier Setup Button** **43**
9. **DVD Zoom Button** **29**
10. **DVD Audio Language Select Button** **28**
11. **DVD Subtitle Button** **29**
12. **Dolby Virtual Speaker Button** **40**
13. **DVD Slow Button** **26**

Note:
In "MODE 2", you can use buttons other than the above for the same operations as in "MODE 1".

System installation

Installation image (with optional accessories):



You can attach the floor speaker stand (optional accessory) to the front and surround speakers.
(For details on the optional accessory, refer to page 61.)

■ Magnetically shielded speakers

The front, surround and centre speakers may be placed beside or near the TV as they are magnetically shielded. However, discolouration may occur depending on the TV type.

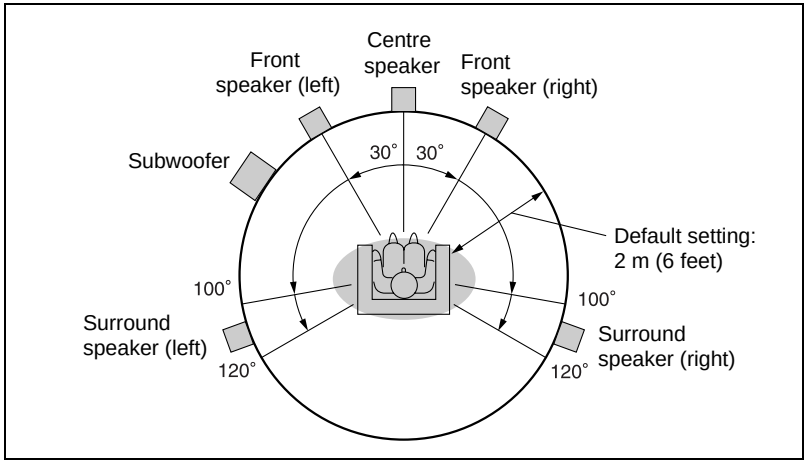
If colour variation occurs...
Turn off the TV (with the power switch).
After 15 - 30 minutes, turn the TV on again.

If the colour variation is still present...
Move the speakers further away from the TV.
Refer to the manual of the TV for details.

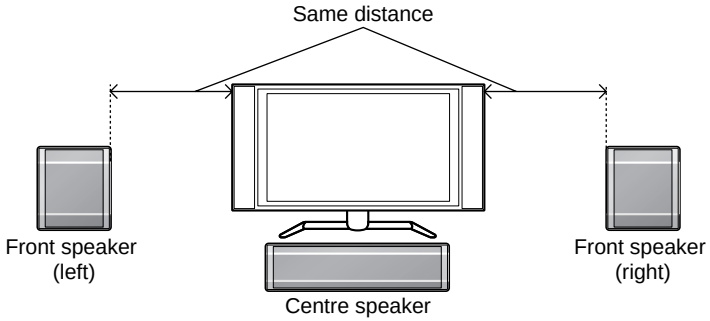
Note:
The subwoofer is not magnetically shielded.

■ Placing the speaker system

The best surround effect will be achieved by placing each speaker at the same distance from the listening position.
It is recommended to arrange the speakers as shown below.



Notes:
- The default distance is set to 2 m (6 feet). If speakers cannot be placed at equal distances, refer to "Speaker delay setting" (see page 43).
- Place the TV halfway between the front speakers.
- It is recommended that the centre speaker be placed near the television.
- Place the surround speakers at a position just above the height of your ears.
- You can place the subwoofer anywhere you like. As it vibrates whilst reproducing bass, place it on a stable, sturdy surface.

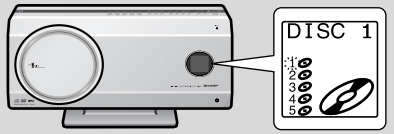


Main unit preparation

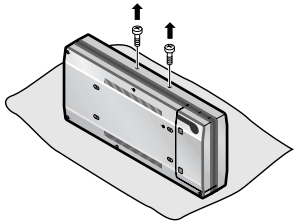
Make sure to unplug the AC power lead before installing the main unit or change the position.

Select from three installation methods according to the location.
For position A or B, make sure to use the included main unit stand. Otherwise the unit may fall.
The display direction changes according to the installation direction.

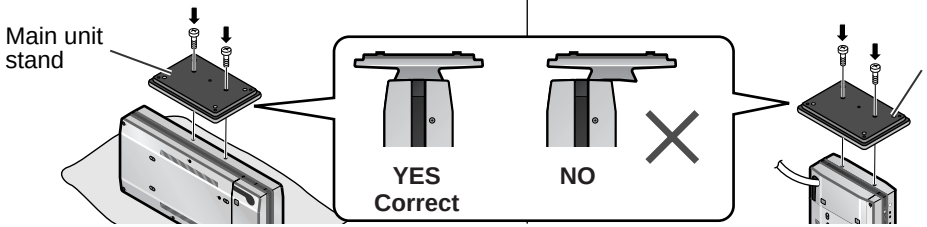
Position A



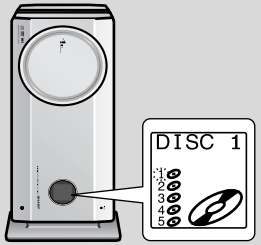
1 Remove the 2 screws.



2 Secure the stand with the removed screws.

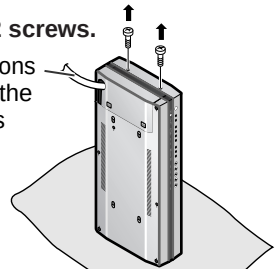


Position B

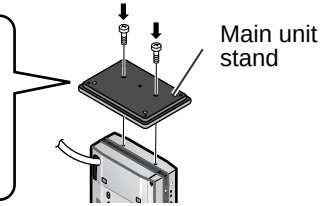


1 Remove the 2 screws.

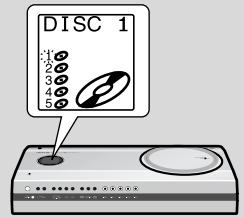
Make all connections before attaching the stand (see pages 14, 16).



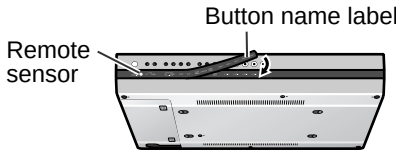
2 Secure the stand with the removed screws.



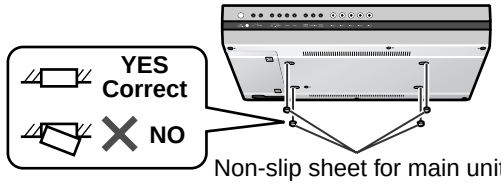
Position C



1 Align the position with the remote sensor and attach the included button name label.



2 Fit the non-slip sheets into the groove.



Notes:
- When attaching the stand, place the main unit on a cushion or soft cloth to avoid damage.
- Use the removed screws to secure the stand. Otherwise, the unit may break.
- Remove the only specified screws. Otherwise malfunction may occur. Be careful not to lose the removed screws.
- Attach the button name label carefully. It is difficult to peel off.

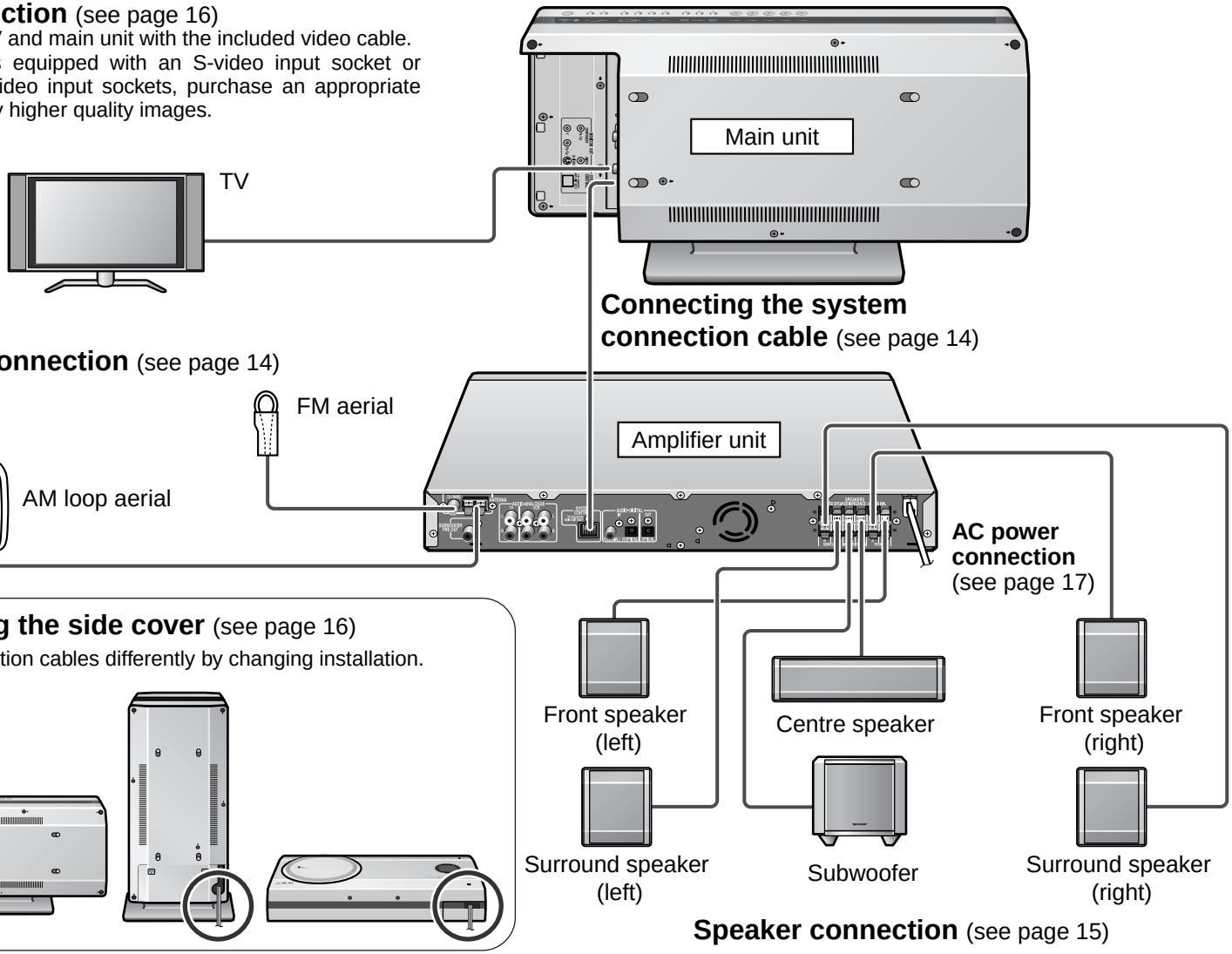
Caution:
- Do not change the installation direction when the main unit is turned on. Discs may not be read or may be damaged.
- To turn on the power after the first installation or after changing the installation method, use the ON/STAND-BY button on the main unit. From the next time, you can also use the remote control.

System connections

Make sure to unplug the AC power lead before making any connections.

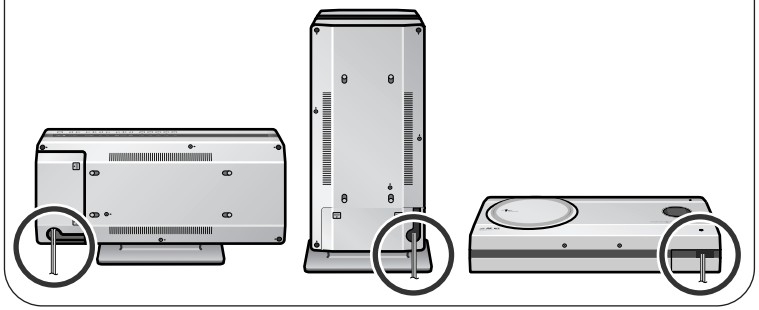
TV connection (see page 16)

Connect a TV and main unit with the included video cable.
If your TV is equipped with an S-video input socket or component video input sockets, purchase an appropriate cable to enjoy higher quality images.



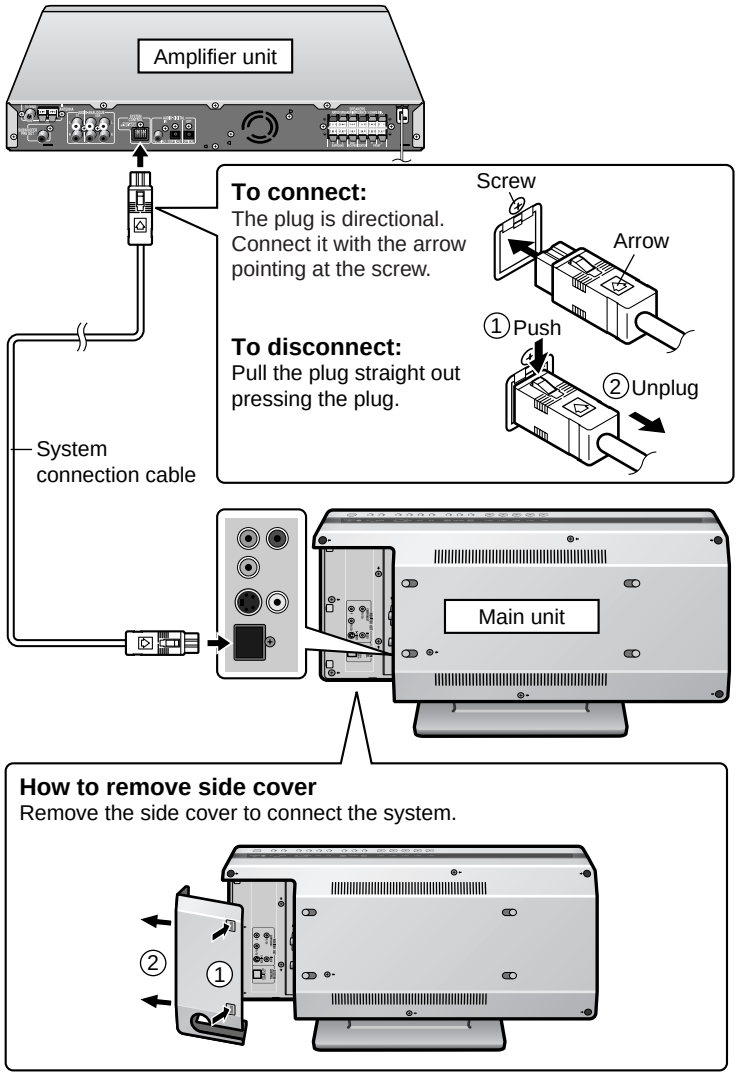
Attaching the side cover (see page 16)

You can position cables differently by changing installation.



■ Connecting the system connection cable

Connect the main unit and amplifier unit as follows.

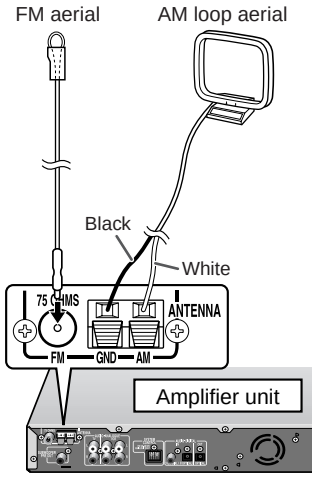


Aerial connection

Supplied FM aerial:
Connect the FM aerial wire to the FM 75 OHMS socket and position the FM aerial wire in the direction where the strongest signal can be received.

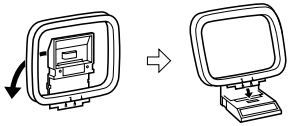
Supplied AM loop aerial:
Connect the AM loop aerial wire to the AM and GND terminals. Position the AM loop aerial for optimum reception. Place the AM loop aerial on a shelf, etc., or attach it to a stand or a wall with screws (not supplied).

Note:
Placing the aerial on the unit or near the AC power lead may cause noise pickup. Place the aerial away from the unit for better reception.

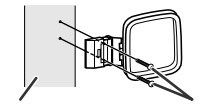


Installing the AM loop aerial:

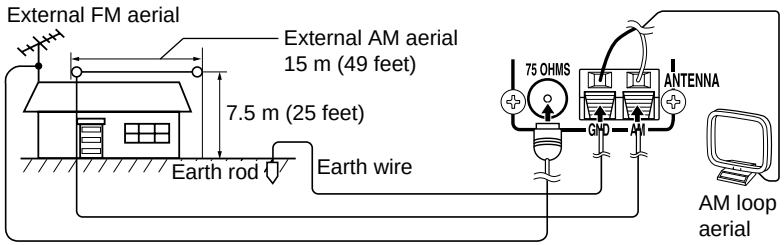
< Assembling >



< Attaching to the wall >



External FM or AM aerial:
Use an external FM or AM aerial if you require better reception. Consult your dealer. When using an external AM aerial, be sure to keep the wire of the AM loop aerial connected.



Speaker connection

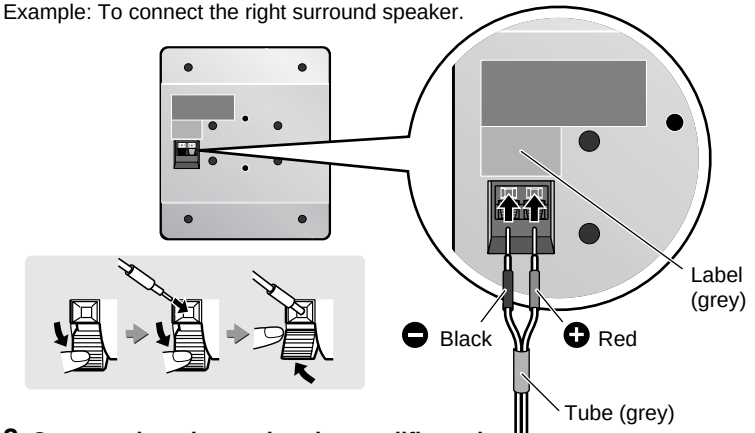
Make sure to leave the AC power lead disconnected when connecting the speakers.

To prevent accidental short circuits between ⊕ and ⊖ terminals, connect the speaker wires to the speakers first and then to the unit.

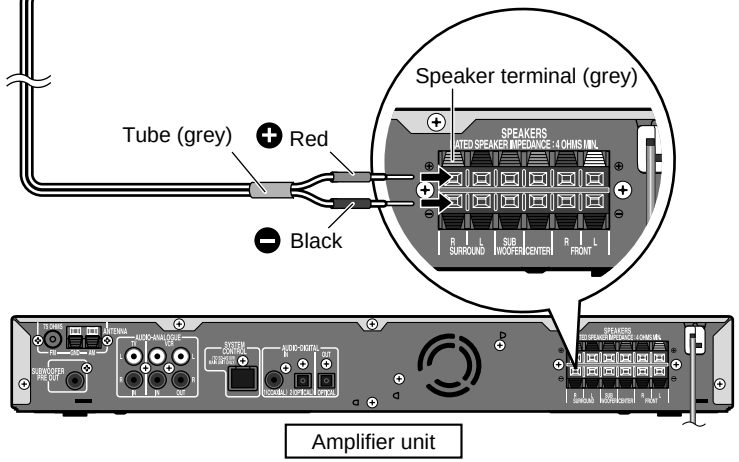
Connect the speaker and the unit by matching the colours.

1 Connect the wires to the speakers.

Example: To connect the right surround speaker.



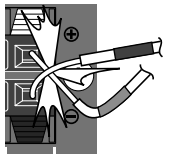
2 Connect the other end to the amplifier unit.



Amplifier unit

Caution:

- **The supplied speakers are designed exclusively for the SD-AS10W. Do not connect these speakers to other equipment. Also, do not connect other speakers to the SD-AS10W. It may cause malfunction.**
- Do not mistake the ⊕ and ⊖, and right and left terminals of the speaker wires. (The right speaker is placed on the right when you face the unit.)
- **Do not let the bare speaker wires touch each other.**
- Do not stand or sit on the speakers. You may be injured.
- **Do not short-circuit the speaker wire. If it happens with the power on, the protection circuit is activated and the unit is set to the power stand-by mode. In this case, check that the speaker wire is connected correctly before turning on the power again.**
- The speakers grilles are not removable.
- Do not allow any objects to fall into or to be placed in the bass reflex ducts.

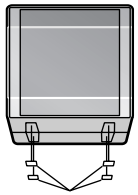


Incorrect

Non-slip sheet for speakers:

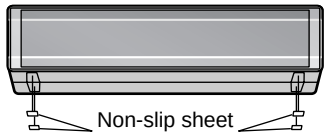
Attach the sheets to the bottom of the speaker to prevent it from sliding.

Front/surround speakers



Non-slip sheet for speakers

Centre speaker

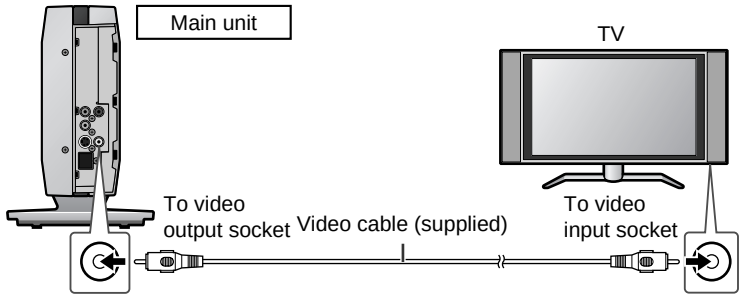


TV connection

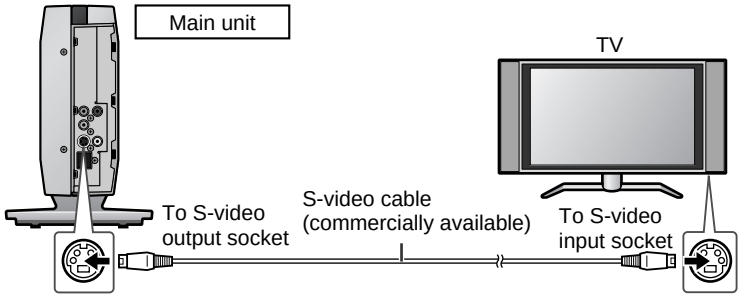
Three types of sockets (VIDEO OUT, S-VIDEO OUT and COMPONENT VIDEO OUT) are available for connection of a TV and this unit. Connect according to your TV.

Connect the optional S-video cable or component video cable for higher quality DVD images. For the component video cable, the progressive video mode is available and you can enjoy images with less flicker (default setting: PROGRESSIVE OFF). See page 24 for details.

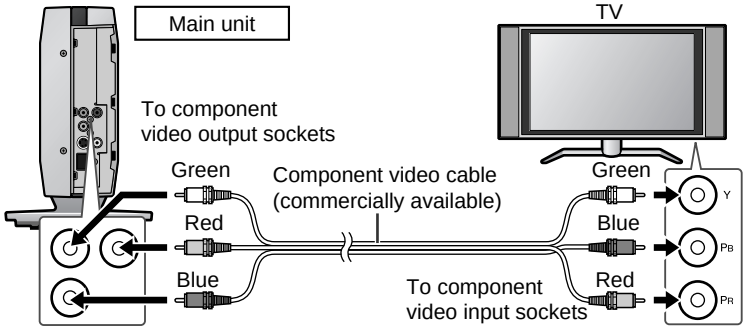
Connecting to a TV with a video input socket



Connecting to a TV with an S-video input socket



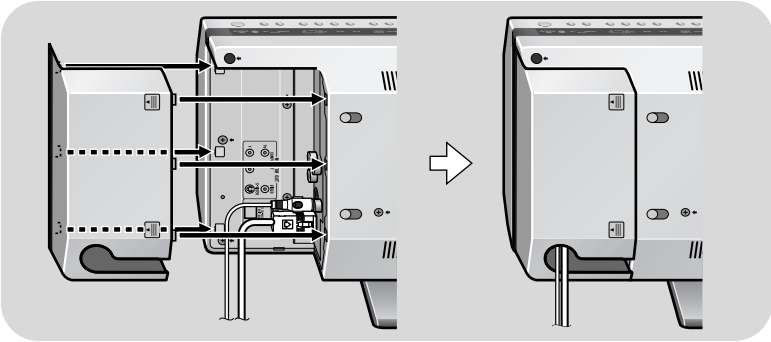
Connecting to a TV with component video input sockets



Notes:

- Change the TV input in accordance with the connected socket.
- Do not connect other equipment between the TV and this unit. If they are connected via a VCR, pictures may be distorted.
- If your TV has different indications for the component video inputs (Y, CB and CR or Y, B-Y and P-Y), connect sockets with its matching colour.
- Do not connect to a component video input socket designed for the high-vision system, which is not DVD-compatible (the images may be distorted or not appear).
- Using the audio cable, you can listen to the TV sound with this unit (see page 55).

■ Attaching the side cover

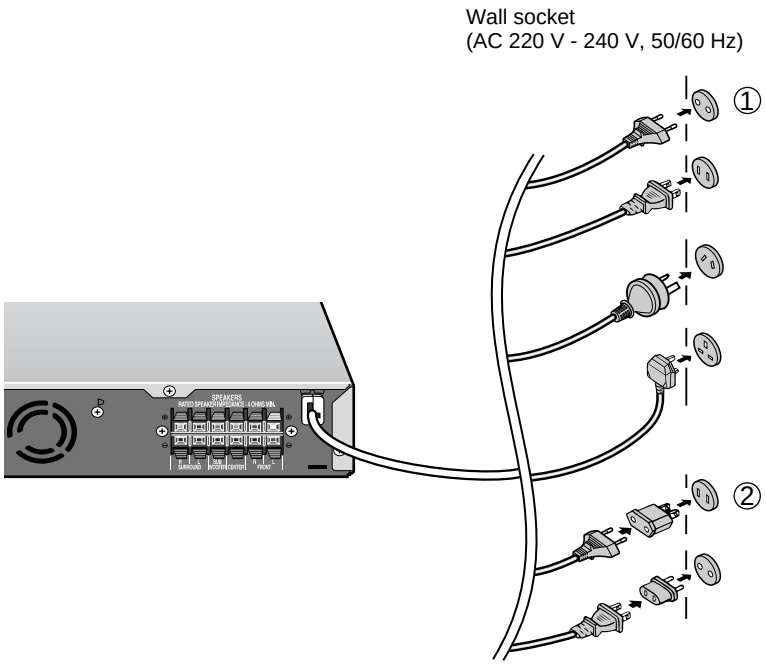


1 After making all the connections, attach the side cover to the main unit. Fit the claws into the holes.
2 Route all the cables through the hole of the cover.

AC power connection

■ Connecting the AC power lead

After checking all the connections have been made correctly, plug in the amplifier unit.



Note:

- Unplug the AC power lead from the wall socket if the unit will not be in use for a prolonged period of time.
- Before unplugging the AC power lead, remove all the discs.

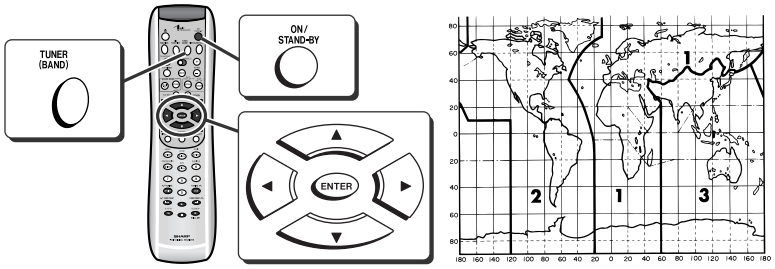
AC Plug Adaptor

In areas (or countries) where a wall socket shown in illustration ② is used, connect the unit using the AC plug adaptor supplied with the unit, as illustrated. The AC plug adaptor is not included in areas where the wall socket and AC power plug can be directly connected (see illustration ①).

Note for users in Australia and New Zealand:

An AC plug adaptor is not supplied if the lead has an Australian Standard plug.

Setting the AM/FM interval



The International Telecommunication Union (ITU) has established that member countries should maintain either a 10 kHz or 9 kHz interval between broadcasting frequencies of AM stations and 100 kHz or 50 kHz for FM stations. The illustration shows the 50/9 kHz zones (regions 1 and 3), and the 100/10 kHz zone (region 2).

Before using the unit, be sure to set it to the AM/FM tuning interval (span) used in your area.

To change the AM/FM tuning interval:

1 Press the ON/STAND-BY button to enter the power stand-by mode.
2 Whilst holding down the TUNER (BAND) button, press the ON/STAND-BY button.

TUNER	SPAN
FM	50kHz
AM	9kHz

3 Within 6 seconds, press the ◄, ►, ▲ or ▼ button to select the interval (span) in your area.
The display switches each time you press the button.

TUNER	SPAN
FM	50kHz
AM	9kHz

⇔

TUNER	SPAN
FM	100kHz
AM	10kHz

4 Within 6 seconds, press the ENTER button on the remote control.
The unit will enter the power stand-by mode automatically.

Note:

The AM/FM tuning interval will not change unless you press the ENTER button within 6 seconds.

Caution:

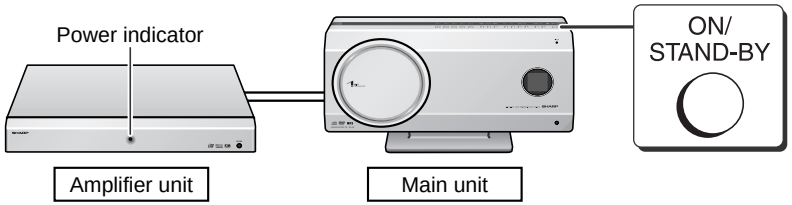
- When the unit is left for a few hours after the span is switched and the AC power lead is disconnected, the AM span automatically returns to 9 kHz (FM span to 50 kHz). If this happens, set the span again.
- When the span is switched, all the memorised stations will be cancelled.

To turn the power on

Press the ON/STAND-BY button.
The power indicator on the amplifier unit lights up.
If the power does not turn on, check whether the power lead and system connection cable are plugged in properly.

To set the unit to stand-by mode:
Press the ON/STAND-BY button again.

Note:
After the unit enters the power stand-by mode, wait a few seconds to turn on again.



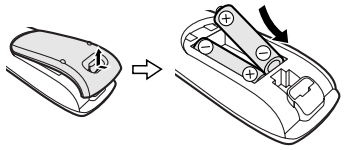
■ Auto power off function

The unit enters the stand-by mode after 20 minutes of inactivity in DVD operation.

Remote control

■ Battery installation

1 **Open the battery cover.**
2 **Insert the supplied batteries according to the direction indicated in the battery compartment.**
When inserting or removing the batteries, push them toward the ⊖ battery terminals.
3 **Close the cover.**



Precautions for battery use:
- Replace all old batteries with new ones at the same time.
- Do not mix old and new batteries.
- Remove the batteries if the unit is not to be used for long periods of time. This will prevent potential damage due to battery leakage.

Caution:
- Do not use rechargeable batteries (nickel-cadmium battery, etc.).
- Installing the batteries incorrectly may cause the unit to malfunction.

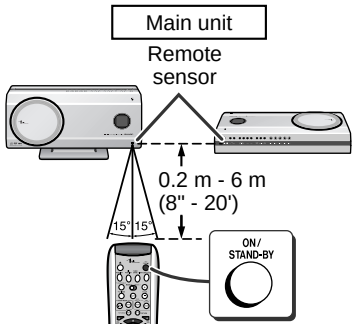
Battery removal:
Remove the battery cover. Push each battery toward the ⊖ battery terminal and take them out.

Notes concerning use:
- Replace the batteries if the operating distance is reduced or if the operation becomes erratic. Purchase 2 "AA" size batteries (UM/SUM-3, R6, HP-7 or similar).
- Periodically clean the transmitter on the remote control and the sensor on the unit with a soft cloth.
- Exposing the sensor on the unit to strong light may interfere with operation. Change the lighting or the direction of the unit.
- Keep the remote control away from moisture, heat, shock, and vibrations.

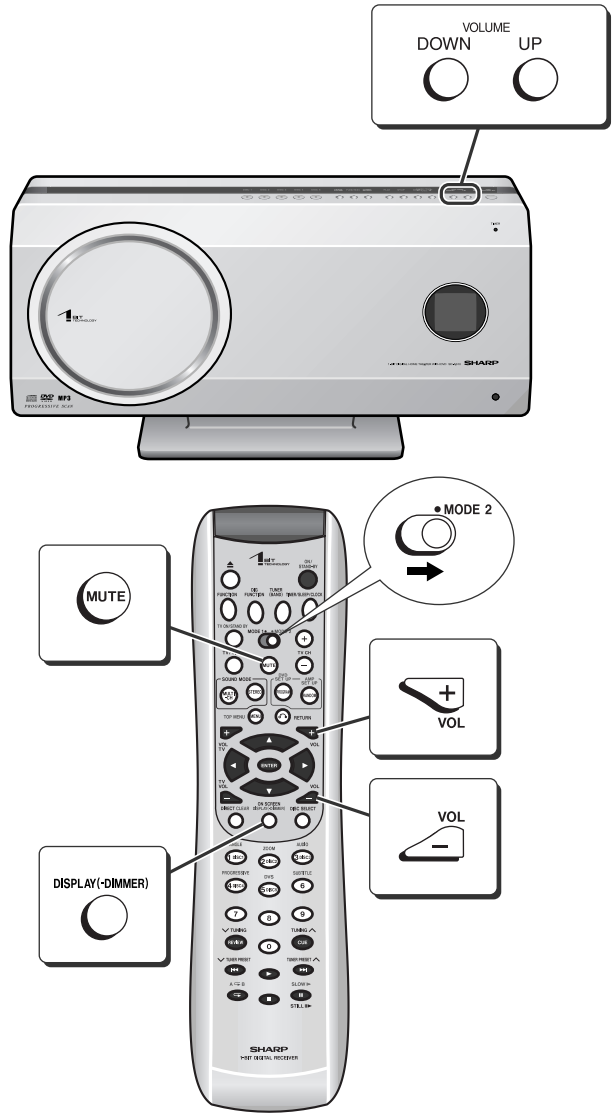
■ Test of the remote control

Point the remote control directly at the remote sensor on the unit.

The remote control can be used within the range shown on the right.
Press the ON/STAND-BY button. Does the power turn on? Now, you can enjoy your system.
- Use 2 remote sensors on the main unit according to the installation direction.



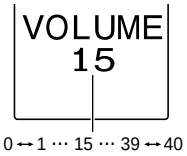
General control



■ Volume control

Main unit operation:
Press the VOLUME UP button to increase the volume and the VOLUME DOWN button for decreasing.

Remote control operation:
Press the VOL + button to increase the volume and the VOL - button for decreasing.

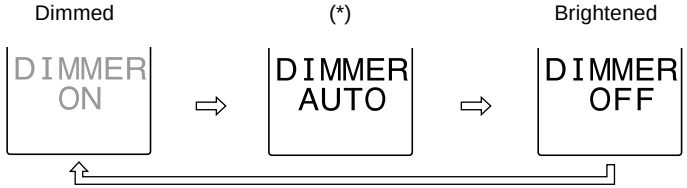


■ Muting

The volume is muted when pressing the MUTE button.
- Press again to restore the volume.
- The mute status is cancelled when you adjust the volume.

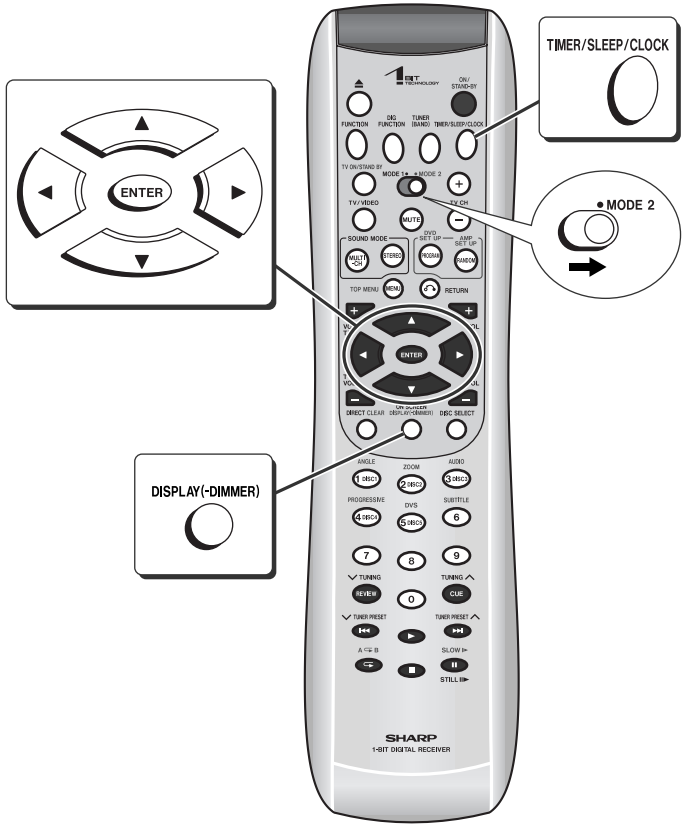
■ To change the display brightness (2 levels)

Set the MODE 1/MODE 2 switch to MODE 2 and hold down the DISPLAY (-DIMMER) button for 3 seconds or more.
Each time you press, brightness changes.



(*) After approx. 5 seconds of DVD playback, the display dims and the original brightness returns when you stop playback. The brightness remains unchanged during playback of other media.

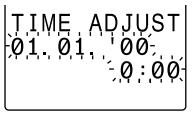
Setting the clock



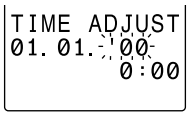
By setting the unit to the correct time, you can use it not only as a clock but also for timer playback.

1 **Turn on the unit, and press the TIMER/SLEEP/CLOCK button.**

2 **Within 10 seconds, press the ▲ or ▼ button to select the date and time indicator and then press the ENTER button.**

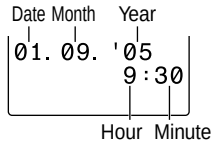


3 **Press the ◄ or ► button to adjust the year and then press the ENTER button.**



Set "Month", "Date", "Hour" and "Minute" in the same way.

- The 24-hour display will appear.
  (0:00 - 23:59)
- The time disappears after approx. 2 seconds.

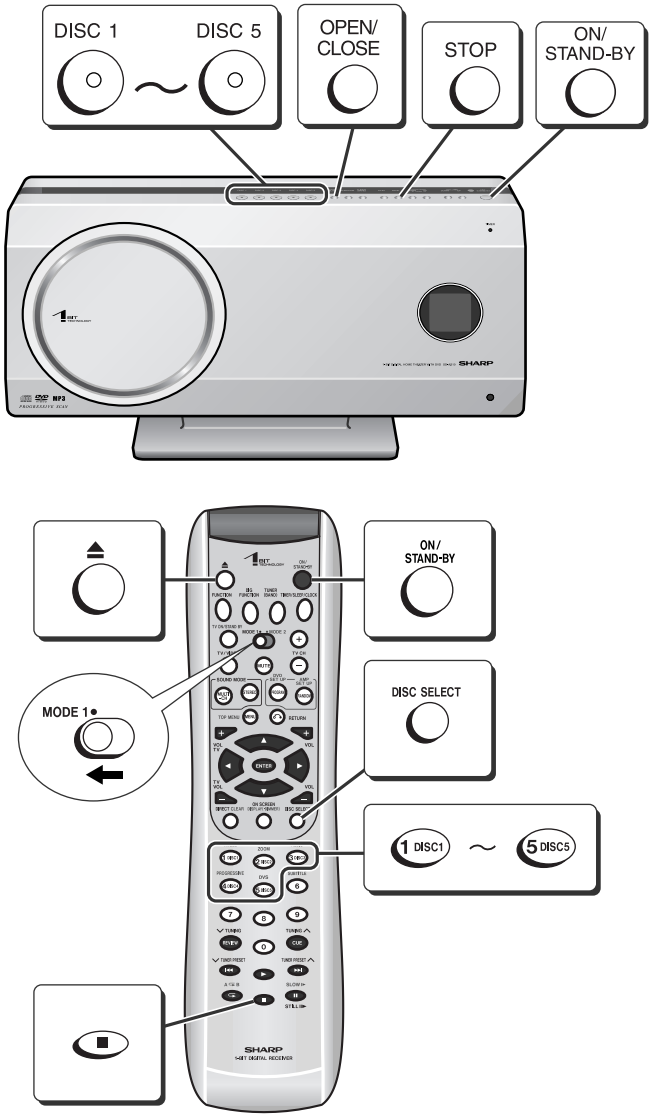


To confirm the time display:
[When the power is off]
Set the MODE 1/MODE 2 switch to MODE 2 and press the DISPLAY (-DIMMER) button.
The time display will appear for about 5 seconds.

[When the power is on]
Press the TIMER/SLEEP/CLOCK button.
Within 10 seconds, press the ▲ or ▼ button to select the time.
The time display will appear for about 10 seconds.

Note:
Unplugging the unit or power failure will stop the clock setting.
Readjust the clock.

Inserting and removing discs

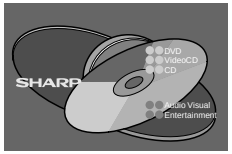


■ Inserting a disc DVD SVCD VCD CD MP3 WMA JPEG

1 **Press the ON/STAND-BY button to turn the power on.**

2 **Press the STOP button to set the input to "DVD".**

The same operation can be performed by pressing the ■ button on the remote control.



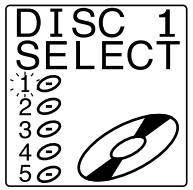
3 **Select the DISC 1 slot.**

Main unit:

Press the DISC 1 button.

Remote control:

Press the DISC SELECT button, set the MODE 1/MODE 2 switch to MODE 1 and press the DISC 1 button.

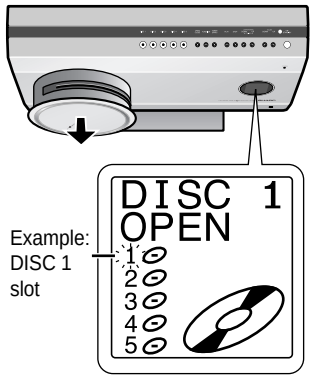


4 **Within 10 seconds, press the OPEN/ CLOSE button.**

- Rotating slowly, the disc compartment opens.
- A disc number flashes for the selected slot.
- The same operation can be performed by pressing the ⏏ button on the remote control.

Note:

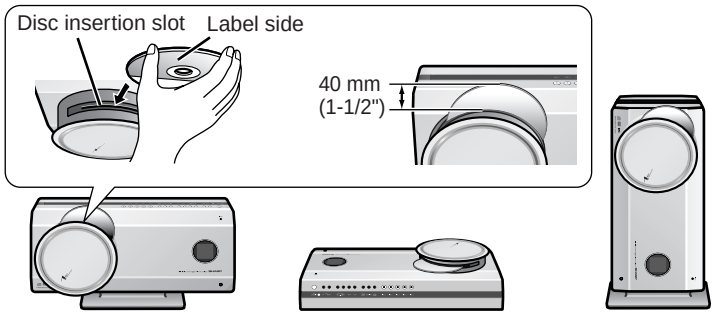
The disc compartment closes approximately after 2 minutes of inactivity. Press the OPEN/CLOSE button again.



Example:
DISC 1
slot

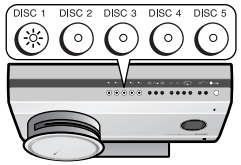
5 Insert a disc into the slot with the label toward you.

Leave about 40 mm (1-1/2") out of the disc compartment.



Disc insertion angle differs depending on the installation direction.

6 When inserting one disc:



① Press the OPEN/CLOSE button.
- The disc enters the slot and the disc compartment closes.
- The same operation can be performed by pressing the ⏏ button on the remote control.

② Repeat steps 3 - 6 to insert a disc into the DISC 2 - 5 slots.

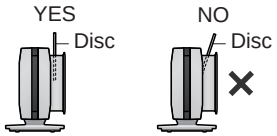
When inserting discs sequentially:

① When the disc is set in the slot, press one of the DISC 1 - 5 buttons (button whose indicator is off) to select a slot for the next disc.
② Within 10 seconds, press the OPEN/CLOSE button.
The disc enters the slot and the unit switches to the selected slot. The disc compartment does not close.
③ Insert the next disc in the slot and repeat steps ① - ②.
④ Press the OPEN/CLOSE button to close the disc compartment.

Caution:
- Do not press the disc compartment or force it open by hand. Malfunction may occur.
- Do not touch the disc compartment whilst it is moving, and be careful not to pinch your fingers.
- If the power fails whilst the compartment is open, wait until the power is restored.
- If the disc compartment is stopped with force, the unit will not function. If this occurs, press the ON/STAND-BY button to enter the power stand-by mode and then turn the unit on again.
- If you turn off the power with the disc compartment open, the compartment closes.
- Do not let coins, clips, etc. get into the disc insertion slot. Malfunction may occur.

Caution when inserting discs:

- **Insert a disc straight, not diagonally. Otherwise the disc or disc compartment may be damaged.**

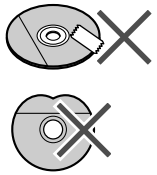


- A disc may be caught inside unless inserted straightly. In this case, remove and insert the disc again.

- 8 cm (3") discs are not supported (disc adaptor cannot be used).

- Do not touch the playback side.

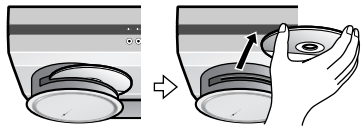
- Do not insert two discs in one disc insertion slot.
- A disc with scratches or fingerprints may not play properly. Refer to "Care of discs" (page 61) and clean the disc.
- Do not insert discs with labels, stickers or glue attached. If inserted, they may not be removed from the compartment, or damage may result to the main unit or discs.
- Do not use the discs of special shapes (heart, octagon shaped, etc.). They may cause damage to the main unit or discs.



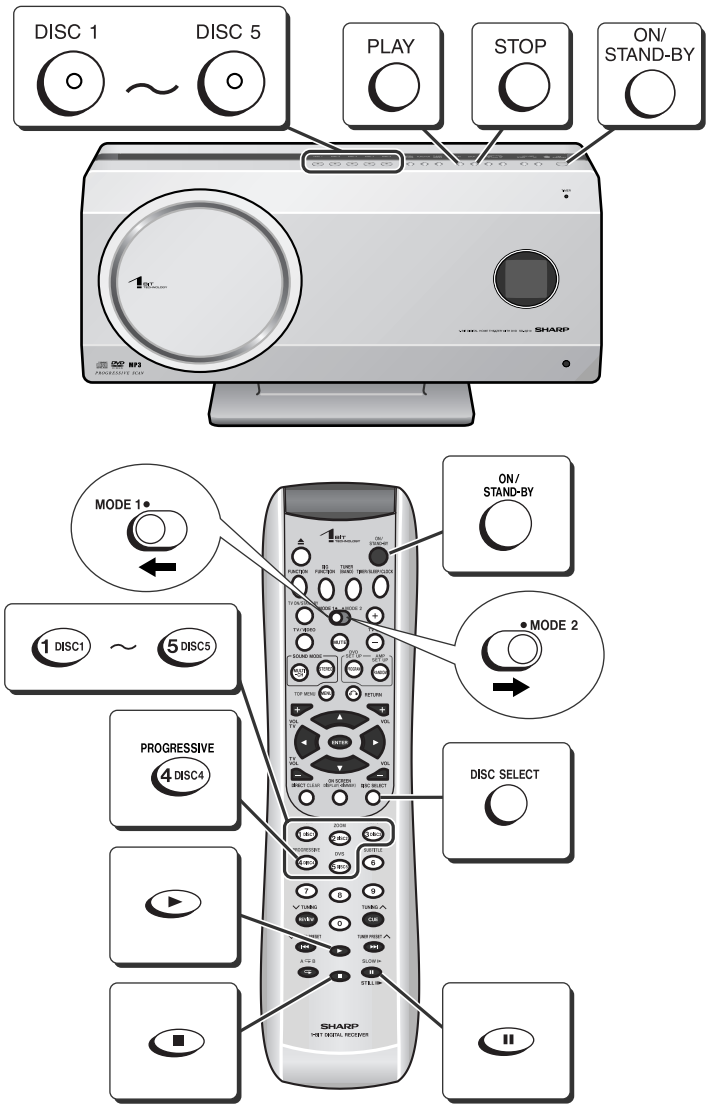
■ To remove the disc

Example: Removing a disc from the DISC 1 slot

1 Press the DISC 1 button.
2 Within 10 seconds, press the OPEN/CLOSE button.
3 Remove the disc.
To remove more discs, repeat steps 1 - 3.
4 Press the OPEN/CLOSE button to close the disc compartment.



Playing a disc



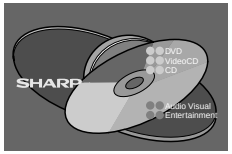
■ Playback DVD SVCD VCD CD MP3 WMA JPEG

- For a wide-screen TV, set the video output to "WIDE" (see page 46).
- Turn on the TV, and switch the input to the "VIDEO 1", "VIDEO 2", etc. accordingly.

1 Press the ON/STAND-BY button to turn the power on.

2 Press the ■ button to set the input to "DVD".

You can also use the STOP button on the main unit.



3 Insert a disc (see pages 21, 22).

4 Press the DISC SELECT button, set the MODE 1/MODE 2 switch to MODE 1 and press the DISC 1 - DISC 5 button.

Alternatively, press one of the DISC 1 - DISC 5 buttons on the main unit.

5 Press the ► button.

- When the top menu (for DVD) is open, select an item with the cursor buttons and press the ► button again.
- You can also use the PLAY button on the main unit.

- The main unit stops after playing a disc and does not switch to other discs automatically.
- When the all disc repeat mode is selected for SVCD/VCD/audio CD playback, the next disc plays after a disc ends.
- When the unit is left unoperated for more than 2 minutes after pressing the ■ (STOP) button or entering the stop mode, a screen saver appears. Press any button on the main unit or remote control. The startup screen returns.
- To play other discs during playback, select a disc number and press the ► (PLAY) button.

To interrupt playback
Set the MODE 1/MODE 2 switch to MODE 1 and press the II button on the remote control.
To resume playback from the same point, press the ► (PLAY) button.

To stop playback
DVD:
Press the ■ (STOP) button twice.

SVCD/VCD/Audio CD/MP3/WMA/JPEG:
Press the ■ (STOP) button.

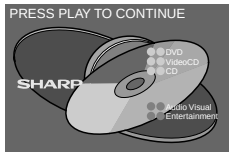
Notes:
- Some DVD discs may not function as described in the manual. See the disc jacket for restrictions.
- During an operation, "✋" or "⃠" may appear indicating that the operation is disabled by the disc.
- Some DVD-R/DVD-RW/CD-R/CD-RW may not play properly due to the status of the disc or equipment used for recording. Change the recording speed or disc. For more details, see the manual for the equipment.
- When you turn on the power or switch the input to "DVD", initialisation starts and operation is not possible for a few seconds.
- Sound may skip at high volume depending on the disc. In this case, turn down the volume.
- On dual layer DVD discs, playback may pause when the layer switches.

■ To resume playback after stopping (resume play) DVD

You can resume playback from the point where it was stopped.

1 Whilst a disc is playing, press the ■ (STOP) button.

The system stores the point.



2 To restart play, press the ► (PLAY) button.

Playback resumes from the point.

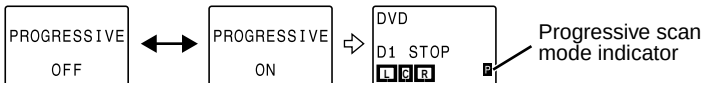
To cancel resume play:
Press the ■ (STOP) button twice.

Notes:
- The resume playback feature is disabled on some discs.
- Depending on the disc, playback may resume from slightly before the stopped position.

■ To exchange other discs whilst playing a disc

1 Press a disc number select button (except for the disc in operation).
2 Within 10 seconds, press the OPEN/CLOSE button.
3 Replace a disc.
4 Press the OPEN/CLOSE button to close the disc compartment.

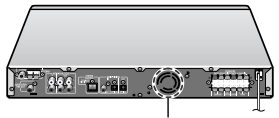
Changing the progressive scan mode
When connecting to a progressive scan TV with a component video cable, you can enjoy images with less flickers. (Set the progressive scan mode to "PROGRESSIVE ON".)
1 Press the ON/STAND-BY button to turn the power on.
2 After playing a disc, enter the stop mode.
In resume play, the progressive scan mode cannot be changed.
3 Set the MODE 1/MODE 2 switch to MODE 2 and press the PROGRESSIVE button repeatedly to select "PROGRESSIVE ON".
Each time this button is pressed, the mode changes in the following order:



When "PROGRESSIVE ON" is selected for a non-progressive scan TV, images do not appear. Select "PROGRESSIVE OFF".

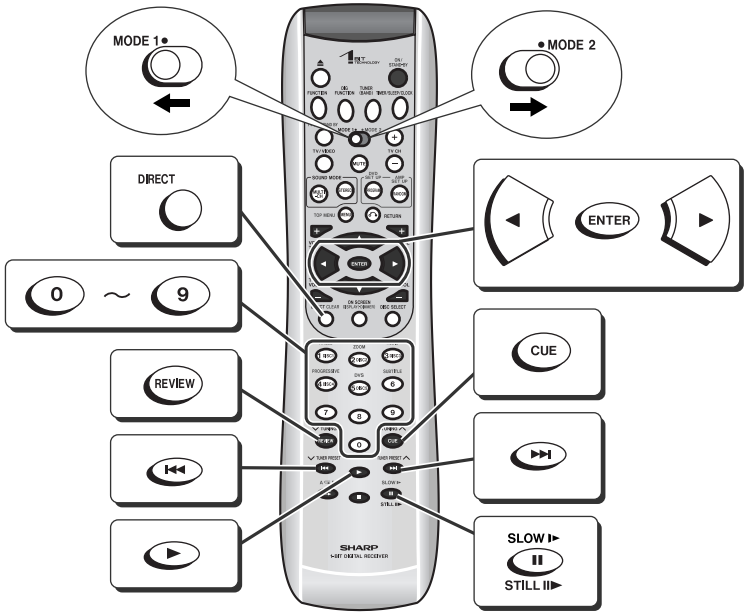
What is progressive scanning?
The conventional TV system displays 30 frames of still images per second to perform a series of movements (interlaced scanning). Whereas, progressive scanning displays one frame every 1/60th of a second (60 frames per second) to ensure less flickers and high-density images.

Cooling fan
This amplifier unit is fitted with a cooling fan at the rear for improved cooling. Please do not cover the opening of the fan with any obstacles, as this will block proper ventilation.



Caution:
- The amplifier unit will get warm whilst being used. Do not touch the warm areas of the amplifier unit for prolonged periods to avoid damage to you.
- This amplifier unit contains an automatic protection circuit, which protects the amplifier unit from being damaged. All speaker outputs are muted when this circuit is activated. Should the unit stop operating, first check the speaker terminals for shorted wires, then press the ON/STAND-BY button to turn on the main unit.

Basic operation



■ To locate the beginning of a chapter (track) (skip)

DVD SVCD VCD CD MP3 WMA JPEG

You can move to other chapter (track) with simple operations.
When playing SVCD or VCD, cancel the P.B.C. (playback control) (see page 32).

Whilst a disc is playing, press the ⏮ or ⏭ button.

TITLE 01/04 CHAPTER 012/024

- Press the ⏭ button to skip to the next chapter (track).
- Press the ⏮ button to skip to the beginning of the current chapter (track). Press the ⏮ button again to skip to the beginning of the previous chapter (track).
- The same operation can be performed by pressing the CHAPTER (TRACK) DOWN or UP button on the main unit.

Notes:

- Some discs do not display the chapter (track) and the skip feature is disabled.
- On DVD, the skip function may not be available across titles.
- The ⏮ and ⏭ button do not allow you to change the main unit display when an MP3 disc is stopped.

■ Fast forward/Fast reverse (search)

DVD SVCD VCD CD MP3

You can search the desired point as you play the disc.

1 Whilst a disc is playing, press the CUE or REVIEW button.

CUE: fast forward — FF 2 X

REVIEW: fast reverse — FR 2 X

On DVD, the speed changes as follows:

2 X → 4 X → 8 X → 16 X → PLAY (Normal play)

On SVCD/VCD/Audio CD, the speed changes as follows:

2 X → 4 X → 8 X → 16 X

On MP3, the speed changes as follows:

2 X → 4 X → 6 X → 8 X → PLAY (Normal play)

- The disc is forwarded by the CUE button and reversed by the REVIEW button.
- The same operation can be performed by holding down the CHAPTER (TRACK) DOWN or UP button on the main unit for 2 seconds or more.

2 Press the ► button to return to normal playback.

Notes:

- On some discs, the search function is disabled.
- On a DVD, search does not operate across titles.
- On SVCD and VCD, search does not operate across tracks when the P.B.C. is on.
- On an MP3, search does not operate across files.
- The main unit stops after playing a disc and does not switch to other discs automatically.
- When the all disc repeat mode is selected for SVCD/VCD/audio CD playback, the next disc plays after a disc ends.
- Sound output and the appearance of subtitles differ depending on the disc.
- When search is performed during the DVD playback, pictures may not be forwarded or reversed in the search speed specified in this manual, depending on the disc or the scene being played.
- This search function is not available during WMA playback.

■ Still picture/Frame advance DVD SVCD VCD

You can freeze the image and advance frame by frame.

1 **During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the STILL II► button.**

PAUSE

2 **Each press of the STILL II► button advances the frame.**

STILL

3 **Press the ► button to return to normal playback.**

Note:
Still picture and frame advance features are disabled on some discs.

■ Slow-motion play DVD SVCD VCD

You can slow down the playback speed.

1 **During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the SLOW I► button.**

SF 1/ 2 X

2 **Press the SLOW I► button repeatedly to select a playback speed.**

DVD:
1/2 X → 1/4 X → 1/8 X → PLAY (Normal play)

SVCD/VCD:
1/2 X → 1/4 X → 1/8 X

3 **Press the ► button to return to normal playback.**

Note:
On some discs, the slow-motion playback functions are disabled.

■ To start playback from the desired point (direct play) DVD

1 **During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the DIRECT button.**

2 **Within 10 seconds, select a title or chapter by pressing the ◄ or ► button and enter the title or chapter number using the direct number buttons.**

TITLE 01/02 CHAPTER 001/002

3 **Within 10 seconds, press the ENTER button.**

To correct the number, enter again.

Notes:
- Direct play feature is disabled on some discs.
- Some DVD discs may not display the chapter number.

■ To play by specifying time (time search) DVD

1 **During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the DIRECT button twice.**

TITLE 02/12 TIME __:__:__

If "_ _ : _ _ : _ _" is not highlighted, press the ◄ or ► button repeatedly.

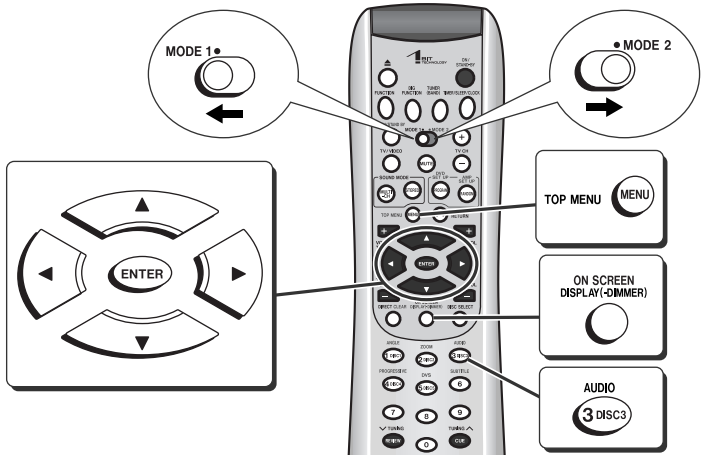
2 **Within 10 seconds, specify the time with the direct number buttons, and then press the ENTER button.**

TITLE 02/12 TIME 01:23:40

- To specify 1 hour 23 minutes and 40 seconds, enter "012340".
- If you enter the wrong number, start over from step 1.
- Specify the elapsed time of the title.

Notes:
- Time search is not possible across titles.
- Some discs cannot play from the specified point.
- Time search feature is disabled on some discs.
- Some discs contain time portions you cannot specify.

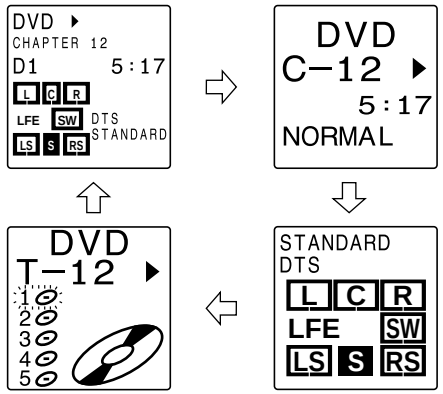
Useful operation



■ To change the display on the main unit

DVD SVCD VCD CD MP3 WMA JPEG

During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the DISPLAY (-DIMMER) button.
Each time you press, the display changes.



Notes:

- The playing time of the disc specified on the jacket, etc, may not include silence between tracks, and may differ from that displayed on the unit.
- Elapsed time on the display does not indicate the actual time.

■ To change the display on TV screen

DVD SVCD VCD CD MP3 WMA

You can display or hide the operation indicators on the TV screen.

During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the ON SCREEN button. (The display is changed at each press.)

DVD:

Current title number Current chapter number

TITLE 02/05 CHAPTER 001 / 008
00:30:21
Total number of chapters
Total number of titles
Elapsed playback time for the current title

TITLE REMAIN
00:45:00
Remaining playback time for the current title

CHAPTER ELAPSED
00:01:23
Elapsed playback time for the current chapter

CHAPTER REMAIN
00:03:03
Remaining playback time for the current chapter

No display

MP3/WMA:

SINGLE ELAPSED 00:05:21
Elapsed playback time for the current file

SINGLE REMAIN 00:02:35
Remaining playback time for the current file

OFF 00:02:35

SVCD/VCD/Audio CD:

SINGLE ELAPSED
00:01:16
Elapsed playback time for the current track

SINGLE REMAIN
00:03:21
Remaining playback time for the current track

TOTAL ELAPSED
00:12:40
Total elapsed playback time for the disc

TOTAL REMAIN
00:48:54
Total remaining playback time for the disc

OFF

Note:

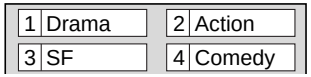
When P.B.C. is set to ON for SVCD or VCD, total playback time and total remaining playback time do not appear.

■ To select a title from the top menu of the disc DVD

On a DVD with multiple titles, you can select a title from the top menu.

1 During playback, set the MODE 1/ MODE 2 switch to MODE 2 and press the TOP MENU button.

Example



2 Use the ▲, ▼, ◄, or ► button to select the title, and then press the ENTER button.

- The selected title is played.
- You can also use the direct number buttons for some discs.

Note:
The procedure shown here provides only general steps. The actual procedure for using the disc menu depends on the disc you are using. See the disc jacket for details.

■ To select a subtitle or audio language from the disc menu DVD

You can select the desired subtitle/audio language and sound system (5.1 ch Dolby Digital or DTS sound) on your DVD if it has a disc menu.

1 During playback, set the MODE 1/ MODE 2 switch to MODE 1 and press the MENU button.

Example

2 Press the ▲, ▼, ◄ or ► button to select a subtitle/audio language and press the ENTER button.

You can also use the direct number buttons for some discs.

Note:
The procedure shown here provides only general steps. The actual procedure for using the disc menu depends on the disc you are using. See the disc jacket for details.

■ To change the audio language (audio output) DVD SVCD VCD

During playback, you can change the audio language (audio output).

1 During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the AUDIO button.

2 Press the AUDIO button repeatedly to select the audio language (audio output).

Each time you press, audio language (audio output) changes on DVD.

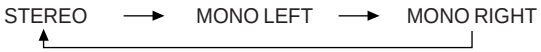
Example:

1: Original <English> (Dolby Digital 5.1 Surround)

2: Original <English> (DTS 5.1 Surround)

3: Chinese (Dolby Digital 2 ch)

The audio output changes as follows on SVCD/VCD:



Notes:
- The audio language on some DVDs may not be changed.
- For available audio languages (audio outputs), see the disc jacket.
- When you set the unit to the stand-by mode or replace the disc, settings return to the default.

Useful operation (continued)

■ To change the subtitle language DVD

You can change the subtitle language or hide subtitles during playback.

1 During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the SUBTITLE button.

2 Press the SUBTITLE button repeatedly to select the subtitle language.

SUBTITLE 01/03: ENGLISH

ENGLISH → FRENCH → ··· → SPANISH → SUBTITLE OFF

- You can select one from the subtitle languages that are recorded on a DVD.
- To hide subtitles on the screen, select "SUBTITLE OFF".

Notes:

- The subtitle language on some DVDs may not be changed.
- If no subtitles are recorded on the disc, "SUBTITLE OFF" is displayed.
- It may take a little time to switch the subtitle language to the selected one.
- When you set the unit to the stand-by mode or replace the disc, settings return to the default.

■ To change the angle DVD

You can change the angle of view when playing a DVD disc that contains scenes recorded from multiple angles.

1 When "A" appears on the TV during playback, set the MODE 1/MODE 2 switch to MODE 2 and press the ANGLE button.

A 1/2

2 Use the ANGLE button to select an angle number.

Each time you press, the angle changes.

A 2/2

Notes:

- Some DVDs prohibit changing the angle.
- The angle number is not displayed if there is no other angle recorded. "✋" is displayed instead.
- Refer to the manual of the disc as the operation may vary depending on the disc.

■ To zoom images (zoom) DVD SVCD VCD

You can magnify images during playback.

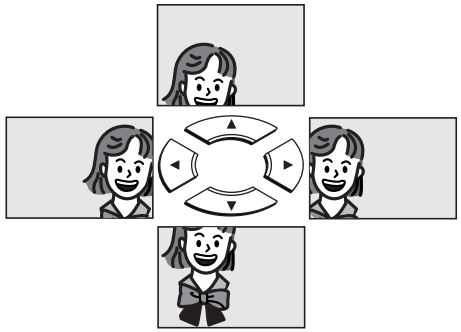
1 In the pause mode or during playback, set the MODE 1/MODE 2 switch to MODE 2 and press the ZOOM button.

ZOOM X 1.5

Pressing the button cycles through the zoom settings as follows:

ZOOM X 1.5 → ZOOM X 2 → ZOOM X 3 → ZOOM OFF

2 To shift the view and display the desired part of a zoomed image, press the ▲, ▼, ◄ or ► button repeatedly.



To return to normal view:

Press the ZOOM button repeatedly to select "ZOOM OFF".
When you cancel the zoom function, you cannot shift the view.

Notes:

- An image may become distorted when zoomed.
- Subtitles cannot be zoomed.

■ To play the contents between the specified points repeatedly (A-B repeat)

DVD SVCD VCD CD

You can play the desired portion repeatedly by specifying it during playback.

1 During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the A ⊂ B button.

TV screen	Unit display
A TO B SET A	A⊂

The start point (A) is created.

2 Press the A ⊂ B button again to enter the end point (B).

A-B repeat operates from the start point (A) to the end point (B).

3 Press the A ⊂ B button to return to normal playback.

Notes:
- A-B repeat play is disabled on some discs.
- Some scenes on DVD may not allow A-B repeat play.
- A-B repeat play for a SVCD, VCD and audio CD is possible only within a track.
- When you press the ■ button, the current A-B repeat play is cancelled. (For DVD, press the ■ button twice.)

■ To play repeatedly (repeat play)

DVD SVCD VCD CD MP3 WMA JPEG

You can play a chapter (track) or a title repeatedly by specifying it during playback.
When playing SVCD or VCD, cancel the P.B.C. (playback control) (see page 32).

During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the ⊂ button.

TV screen	Unit display
CHAPTER REPEAT ON	DVD ▸ C⊂

Each time the button is pressed, the repeat play mode changes in the following order.

The repeat play mode changes as follows on DVD:

CHAPTER REPEAT ON	**C ⊂**	Repeat the currently playing chapter.
↓	↓	
TITLE REPEAT ON	**T ⊂**	Repeat the currently playing title.
↓	↓	
REPEAT OFF	No display	Normal playback.

The repeat play mode changes as follows on SVCD/VCD/CD:

REPEAT ONE	**1 ⊂**	Repeat the currently playing track.
↓	↓	
DISC REPEAT	**D ⊂**	Repeat the currently playing disc.
↓	↓	
No display	**ALL ⊂**	Repeat the tracks of all discs.
↓	↓	
No display	No display	Normal playback.

The repeat play mode changes as follows on MP3/WMA/JPEG:

FOLDER	**FOL**	Play tracks in the current folder. (Normal playback.)
↓	↓	
DISC	**DISC**	Play tracks on the current disc.
↓	↓	
FOLDER REPEAT	**F ⊂**	Repeat the currently playing folder (directory).
↓	↓	
DISC REPEAT	**D ⊂**	Repeat the currently playing disc.
↓	↓	
REPEAT ONE	**1 ⊂**	Repeat the currently playing track.

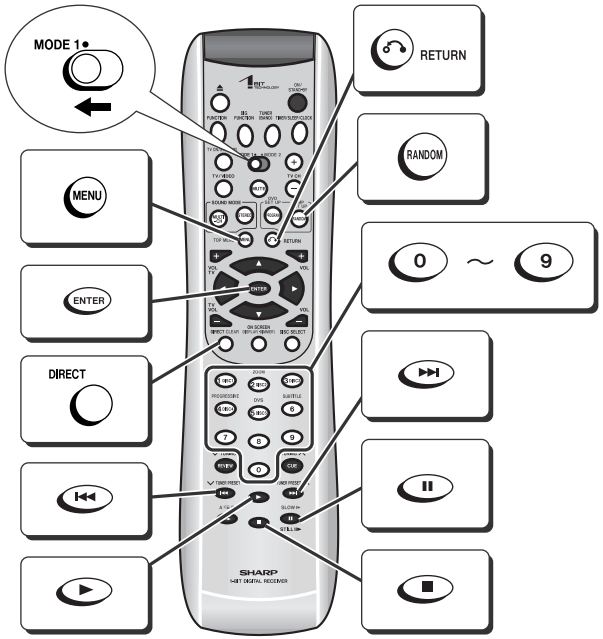
Caution:
After performing repeat play, be sure to press the ■ button. Otherwise, the disc will play continuously.

Notes:
- On some discs, the repeat play function is disabled.
- On DVD/SVCD/VCD/CD, repeat play is cancelled when you stop playback.

Video CD and Super Video CD playback

The procedure of the following playback functions are the same as the DVD or CD operations.

Page
Inserting and removing discs 21
Playback 23
To locate the beginning of a chapter (track) (skip) 25
Fast forward/Fast reverse (search) 25
Still picture/Frame advance 26
Slow-motion play 26
To change the display on the main unit 27
To change the display on TV screen 27
To change the audio language (audio output) 28
To zoom images (zoom) 29
To play the contents between the specified points repeatedly (A-B repeat) . . 30
To play repeatedly (repeat play) 30



■ Playback of a video CD (super video CD) with P.B.C. SVCD VCD

1 Press the ► button.

Example

The menu will appear on the TV and playback will be paused.

2 Set the MODE 1/MODE 2 switch to MODE 1 and select the desired menu number using the direct number buttons.

3 Within 5 seconds, press the ENTER button.

- Playback starts.
- After playback stops, the menu will reappear. Select the menu number to play.

To interrupt playback:
Press the ❚❚ button on the remote control.
To resume playback from the same point, press the ► button.

To stop playback:
Press the ■ button.

To stop the current operation and return to the menu:
Press the RETURN button.

To scroll the menu screen (menu screen with more than 1 page):
Press the ⏮ or ⏭ button.

The P.B.C. function will not work in the following conditions.
Repeat/programmed/direct play or the skip feature is in operation.

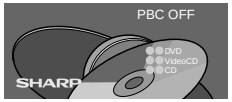
Note:
The menu screen cannot be scrolled on some discs.

■ To play without activating the playback control function SVCD VCD

You can play a video CD (super video CD) with P.B.C. without activating the playback control function.
In this case, the menu screen will not appear, and the disc will play in the same way as a video CD (super video CD) without P.B.C.

During playback, press the MENU button to cancel the P.B.C. mode.

Playback starts.



Note:
Some video CDs (super video CDs) with P.B.C. cannot be played back when the P.B.C. mode is off.

■ To play in random order (random play)

SVCD VCD CD MP3 WMA JPEG

The tracks on the disc can be played in random order automatically.

1 After playing a disc, enter the stop mode.

2 In the stop mode, set the MODE 1/MODE 2 switch to MODE 1 and press the RANDOM button.

RANDOM

3 Press the ► button.

All tracks play in random order.

To cancel random play:
In the stop mode, press the RANDOM button.

Notes:
- The main unit stops after playing a disc and does not switch to other discs automatically.
- Random play is not available during programmed playback.
- In random play, the unit will select and play tracks automatically. (You cannot select the order of the tracks.)
- In random play, repeat play is not available.

■ To start playback from the desired point (direct play) SVCD VCD CD MP3 WMA JPEG

Cancel the P.B.C. (playback control).

1 During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the direct number buttons to select the track number.

SELECT: 14

2 Within 5 seconds, press the ENTER button.

Notes:
- Direct play feature is disabled on some discs.
- Some discs cannot play from the specified point.

■ To play by specifying time (time search)

SVCD VCD CD

Cancel the P.B.C. (playback control).

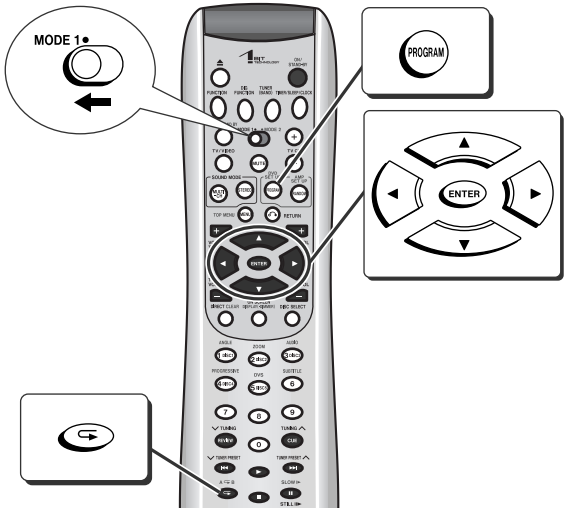
1 During playback, set the MODE 1/MODE 2 switch to MODE 1 and press the DIRECT button.

GO TO __:__

2 Specify the time with the direct number buttons.
- Enter minutes and seconds.
- To specify 4 minutes and 23 seconds, enter "0423".
- Specify the elapsed time of the disc.

Note:
Time search feature is disabled on some discs.

Video CD and Super Video CD playback (continued)



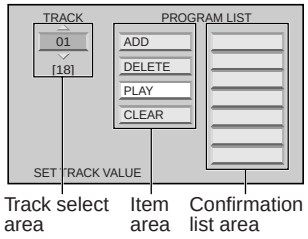
■ To play in the desired order (programmed play) SVCD VCD CD

You can play tracks in the desired order. 21 tracks can be programmed.
When playing SVCD or VCD, cancel the P.B.C. (playback control) (see page 32).

1 After playing a disc, enter the stop mode.

2 In the stop mode, set the MODE 1/ MODE 2 switch to MODE 1 and press the PROGRAM button.

The programming screen is displayed.



3 Press the ▲ or ▼ button to select the desired track.

4 Press the ► button to move to the item area.

5 Press the ▲ or ▼ button to select "ADD" and press the ENTER button.

- The number is saved in the confirmation list area.
- Press the ◄ button, and repeat steps 3 - 5 to programme other tracks.

6 Press the ▲ or ▼ button to select "PLAY" and press the ENTER button.

- The unit stops after playing the tracks in the programmed order.
- The programmed contents will be stored until the disc is removed.

To change the programmed contents:

1 In the stop mode, set the MODE 1/MODE 2 switch to MODE 1 and press the PROGRAM button.
2 Press the ► button to move to the item area.
3 Press the ▲ or ▼ button to select the desired item.

"ADD"*	Adds a track to the programme.
"INSERT"	Inserts a track between programmed tracks. The track is inserted below (after) the selected track.
"DELETE"	Deletes the selected track.
"PLAY"	Starts the programmed play.
"CLEAR"	Deletes the programme.

* "ADD" changes to "INSERT" when selecting tracks in the confirmation list area.

4 Press the ENTER button.

To repeat the programmed play:

During programmed play, press the ⮌ button twice.
Programmed tracks play repeatedly.

Notes:

- Programming cannot be performed whilst paused or in the playback mode.
- Programmed play is prohibited on some discs.

MP3, WMA and JPEG disc operation

The procedure of the following playback functions are the same as the DVD, VCD or CD operations.

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Playback 23
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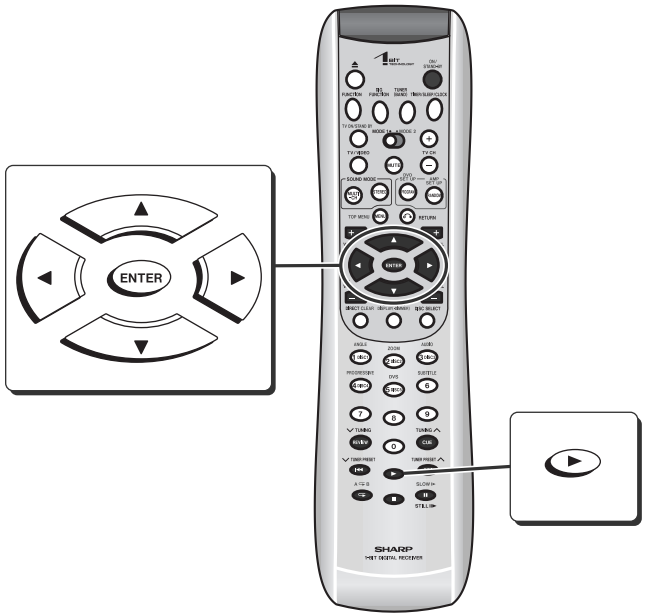
To change the display on the main unit 27
To change the display on TV screen 27
To play repeatedly (repeat play) 30
To play in random order (random play) 32
To start playback from the desired point (direct play) 32

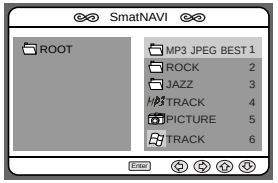


■ Playback on the MP3, WMA and JPEG menu screen MP3 WMA JPEG

You can play CD-R/RW recorded in the MP3, WMA or JPEG format.

1 After playing a disc, enter the stop mode.

The menu screen appears after reading the disc.



··· Indicates folders.
··· Indicates MP3 file.
··· Indicates WMA file.
··· Indicates JPEG file.

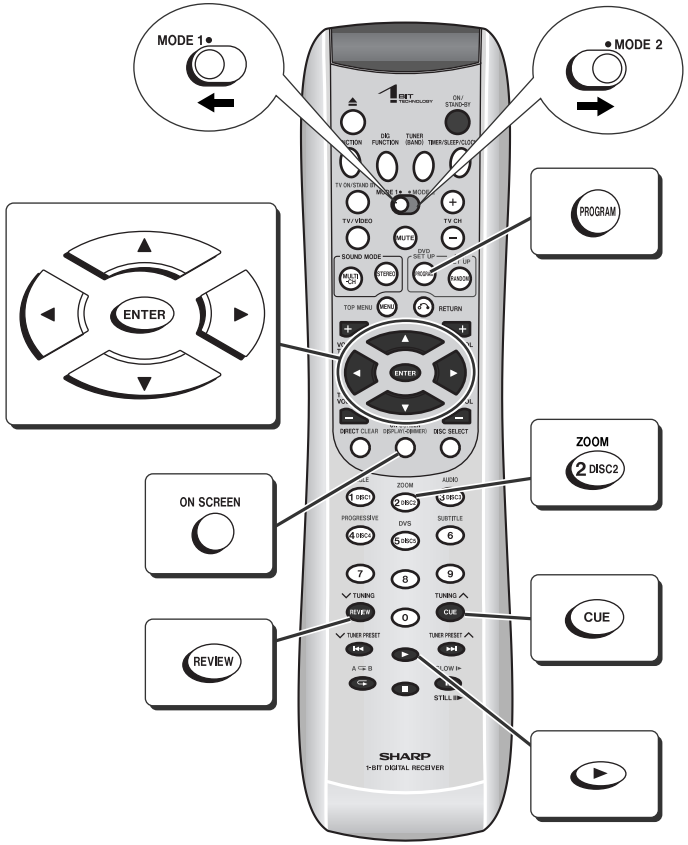
2 Press the ▲, ▼, ◄, ► or ENTER button to select a folder or file and press the ENTER or ► button.

- Playback starts when you select a track.
- When the format is JPEG, the next file is automatically displayed after a while.
- Using the direct number buttons, you can open files directly. Enter the number on the right of the display and press the ENTER button.

Notes:

- Up to 11 characters can be displayed for a folder name and a file name. Underlines, asterisks, and spaces may not be displayed.
- Due to the structure of disc information, it takes longer to read an MP3/WMA or JPEG disc than a normal CD.

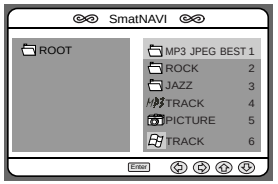
MP3, WMA and JPEG disc operation (continued)



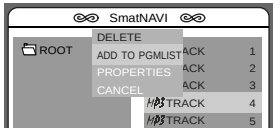
■ To play in the desired order (programmed play) MP3 WMA JPEG

1 **After playing a disc, enter the stop mode.**

2 **Press the ▲, ▼, ◄ or ► button to select a file.**



3 **Set the MODE 1/MODE 2 switch to MODE 1 and press the ON SCREEN button.**

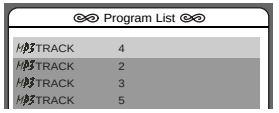


4 **Press the ▲ or ▼ button to select "ADD TO PGMLIST" and press the ENTER button.**

Repeat steps 2 - 4 to programme other files.

5 **Press the PROGRAM button to view the programme list.**

In the stop mode, press the PROGRAM button again to return to the menu screen.



6 **Press the ► button.**

To change the programmed contents:

1 Set the MODE 1/MODE 2 switch to MODE 1 and press the ON SCREEN button.
2 Press the ▲ or ▼ button to select the desired item.

"DELETE"	Delete the selected file from the programme list.
"ADD TO PGMLIST"	Add selected files to the programme list.
"PROPERTIES"	Select this item to view properties of the selected file (available in the stop mode or whilst the cursor is in the programme list).
"CANCEL"	Cancel the on-screen display.

3 Press the ENTER button.

■ Zoom function JPEG

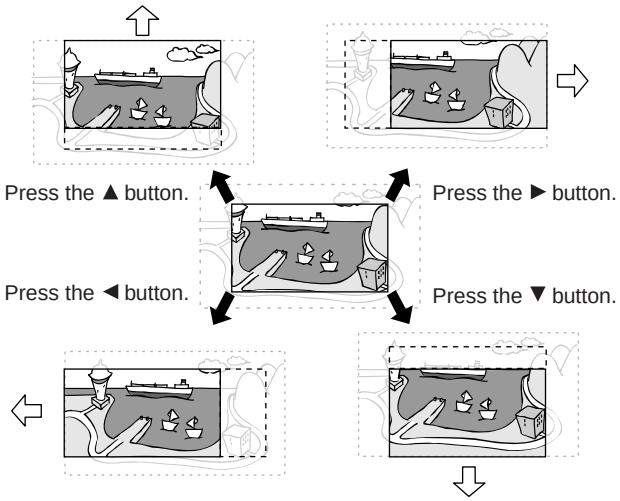
1 During playback, set the MODE 1/MODE 2 switch to MODE 2 and press the ZOOM button. "ZOOM ON" appears on the screen.

2 Press the REVIEW or CUE button.

Each press of the REVIEW or CUE button cycles through the zoom setting as follows.

ZOOM 025 PCT↔ZOOM 050 PCT↔ZOOM 100 PCT↔ZOOM 150 PCT↔ZOOM 200 PCT

3 To shift the view and display the desired part of a zoomed image, press the ▲, ▼, ◄ or ► button repeatedly.



To return to normal view:
Set the MODE 1/MODE 2 switch to MODE 2 and press the ZOOM button again. "ZOOM OFF" appears on the screen.

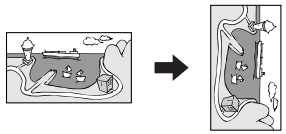
■ Rotating a picture JPEG

You can rotate images.

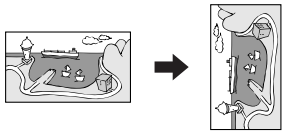
During playback, press the ▲, ▼, ◄ or ► button.

The image rotates as shown below.

► button : 90° rotation in a clockwise direction.



◄ button : 90° rotation in an anti-clockwise direction.

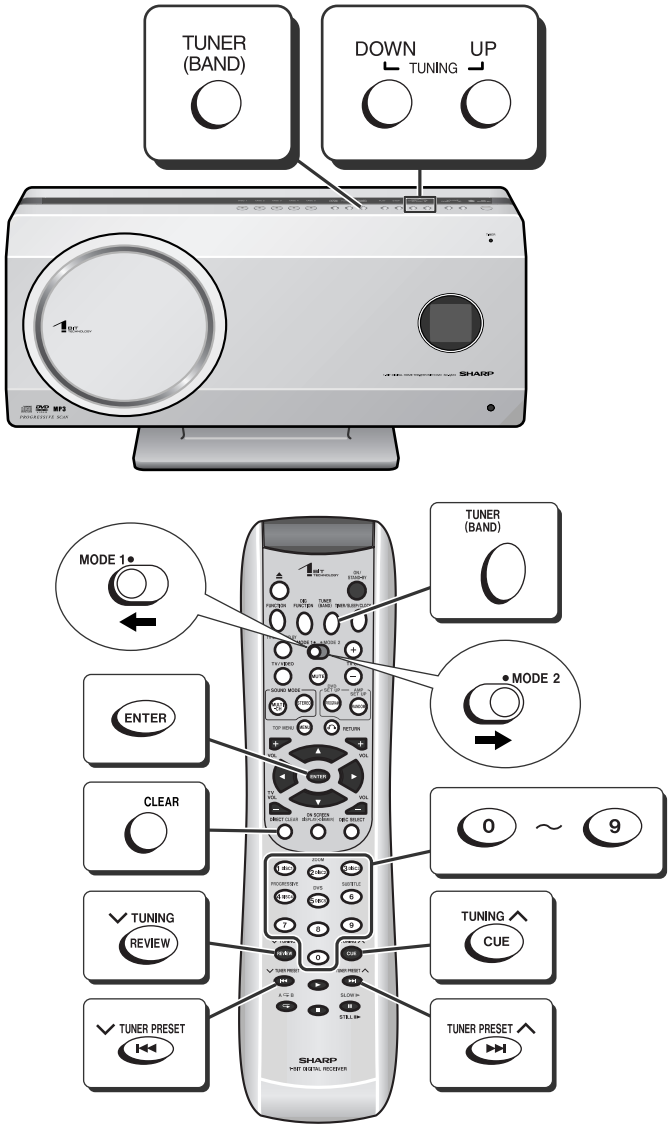


▲ button : Vertical mirror image.

▼ button : Horizontal mirror image.

Note:
Some images may not be zoomed or rotated ("✋" appears).

Listening to the radio



1 **Turn on the power and press the TUNER (BAND) button to set the input to "FM (AM)".**

2 **Press the TUNER (BAND) button repeatedly to select the desired frequency band.**

FM stereo	FM mono	AM
FM ST 88.00MHz	FM 88.00MHz	AM 531kHz

3 **Press the TUNING (∨ or ∧) button to tune in to the desired station.**

Manual tuning:
Press the TUNING button as many times as required to tune in to the desired station.

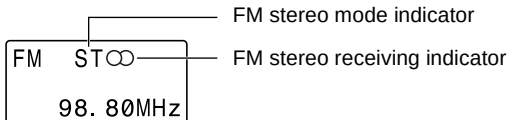
Auto tuning:
When the TUNING button is pressed for 0.5 seconds or more, scanning will start automatically and the tuner will stop at the first receivable broadcast station.

- When radio interference occurs, auto scan tuning may stop automatically. Should this happen, tune in manually.
- Auto scan tuning will skip weak signal stations.
- To stop the auto tuning, press the TUNING button again.

You can also use the TUNER (BAND), TUNING DOWN or TUNING UP button on the main unit.

To receive an FM stereo transmission:
Press the TUNER (BAND) button to display the "ST" indicator.

- "∞" will appear when an FM broadcast is in stereo.



- If the FM reception is weak, press the TUNER (BAND) button to turn off the "ST" indicator. The reception changes to mono, and the sound becomes clearer.

After use:
Press the ON/STAND-BY button to enter the power stand-by mode.

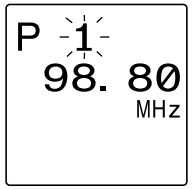
Note for users in Australia and New Zealand:
This product can receive FM stereo/FM monaural and AM monaural broadcasts.
AM stereo broadcasts will not be played in stereo.

■ Listening to the memorised station

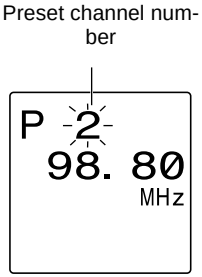
You can store 40 AM and FM stations in total (preset tuning).

1 Tune in the desired station and press the ENTER button.

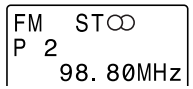
- For FM stations, stereo and mono modes are memorised.
- Store the stations in memory, in order, starting with preset channel 1.



2 Within 5 seconds, press the TUNER PRESET (∨ or ∧) button to select the preset channel number.



3 Within 5 seconds, press the ENTER button to store that station in memory.

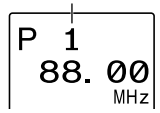


When a new station is stored in memory, the station previously memorised for that preset channel number will be erased.

Note:
The backup function protects the memorised stations for a few hours should there be a power failure or the AC power lead become disconnected.

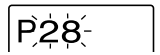
To recall a memorised station:

Press the TUNER PRESET (∨ or ∧) button to select the desired station.

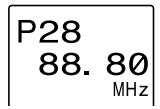


To select a preset station with the direct number buttons:

1 Set the MODE 1/MODE 2 switch to MODE 1.
2 Press the corresponding number ("0" - "9").
3 Press the ENTER button.



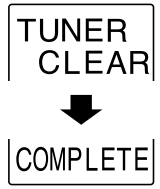
For example, to choose 28
1 Press the 2 button.
2 Press the 8 button.
3 Press the ENTER button.



- Press buttons within 5 seconds.
- To correct, enter the number again.

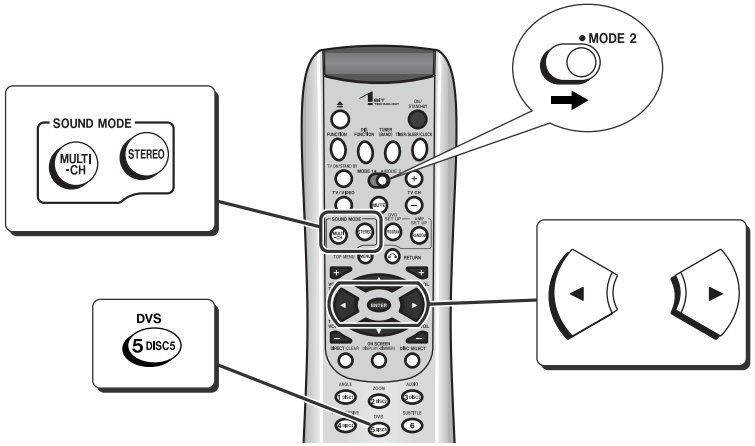
To erase all the contents of the preset memory:

1 Set the MODE 1/MODE 2 switch to MODE 2.
2 Hold the CLEAR button down for 4 seconds or more.
3 Within 10 seconds, press the ENTER button.



Enjoying surround sound (sound mode)

You can enjoy spacious sound recorded in Dolby Digital or DTS.
Also, Dolby Pro Logic Ⅱ allows you to enjoy spacious 2 channel stereo sound.



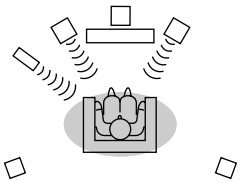
■ Listening to 2 channel stereo sounds

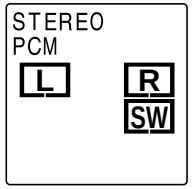
Whilst the disc is playing, press the STEREO button.

STEREO

STEREO

You can enjoy the great acoustic effects of the front speakers and subwoofer.





Note:
Some discs are recorded at 96 kHz (sampling frequency). When this type of disc is played on a compatible player and signals are digitally [DIGITAL IN 1 (COAXIAL)/2 (OPTICAL)] sent to this unit, the sound mode is changed to "STEREO" automatically. The sound mode cannot be changed during playback.

■ Listening to sounds in the multi channel mode (5.1 ch, etc.)

Whilst the disc is playing, press the MULTI-CH button.

MULTI -CH

When you press once, the last used setting appears. To change it, press the button repeatedly within 3 seconds.

STANDARD:
You can enjoy the original sound as it is.

MOVIE:
The bass level is increased for powerful sound effect.

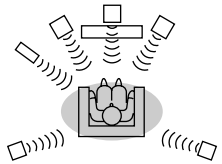
MUSIC:
You can enjoy lively sound by producing the articulate sound.

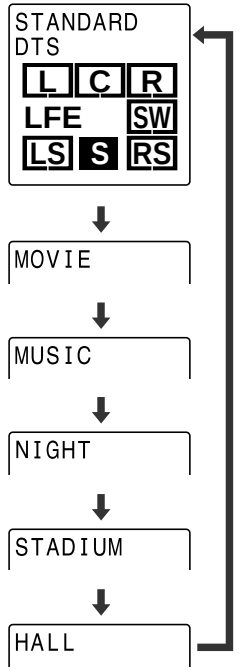
NIGHT:
Soft but powerful sound is achieved even at low volumes.

* **STADIUM:**
You feel like one of the audience in a stadium.

* **HALL:**
A concert hall atmosphere is created.

(*) Settings are available for 2 channel discs and 2 channel compatible equipment.





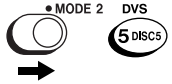
Notes:
- When monaural signals are received in the multi channel mode, only the centre speaker and subwoofer produce sound. If played in the "STEREO" mode, the same sound is reproduced from the right and left speakers.
- When you play Dolby Digital or DTS sound with "STADIUM" or "HALL" set, surround is automatically set to "STANDARD".
- When listening to Dolby Digital or DTS sound, you cannot select "STADIUM" and "HALL".

■ Listening to sounds in the Dolby Virtual Speaker mode (DVS)

Even when you cannot place the surround speakers behind due to a shortage of space, etc., you can enjoy surround effects similar to those for the 5.1 multi channel surround sound using Dolby Virtual Speaker processing.

1 Whilst the disc is playing, press the STEREO or MULTI-CH button.

2 Set the MODE 1/MODE 2 switch to MODE 2 and press the DVS button.



3 Within 3 seconds, press the ◄ or ► button.

2 channel playback

DVS OFF:

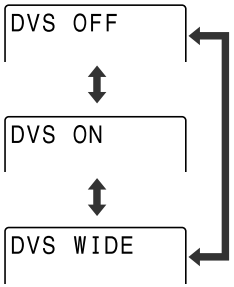
Normal 2 channel stereo sound.

DVS ON:

Virtual surround effects are created behind whilst only the front speakers are placed in front.

DVS WIDE:

Virtual surround effects are created in front and behind whilst only the front speakers are placed.



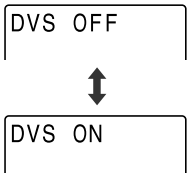
5.1 channel playback

DVS OFF:

Normal multi channel mode.

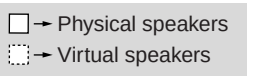
DVS ON:

Virtual surround effects are created behind whilst the front and surround speakers are placed in front.

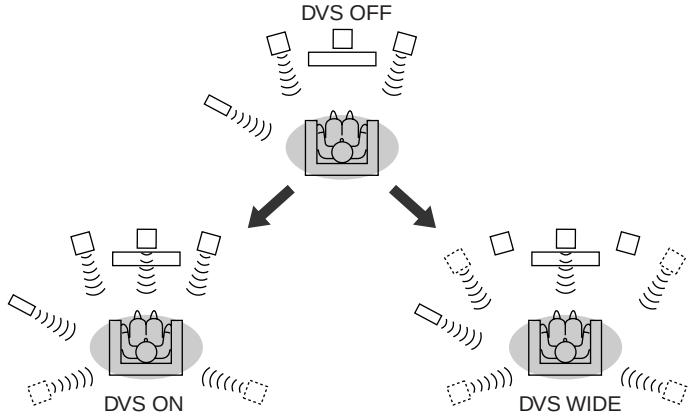


Note:
The DVS mode is cancelled when the MULTI-CH or STEREO button is pressed.

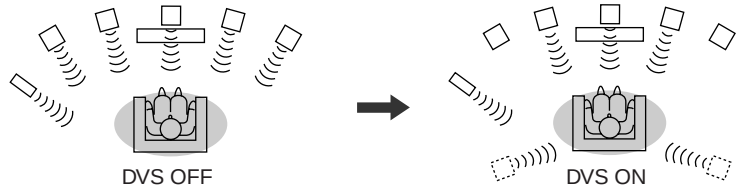
The physical speakers are shown in solid lines in the figure, virtual speakers in dotted lines.



2 channel playback
A three-speaker listening environment both with and without Dolby Virtual Speaker processing.
You can enjoy the following surround effects using Dolby Virtual Speaker processing even in the stereo mode.



5.1 channel playback
A five-speaker listening environment both with and without Dolby Virtual Speaker processing.
You can enjoy the following surround sounds using Dolby Virtual Speaker processing even when you need to place the surround speakers in front due to a shortage of space, etc.

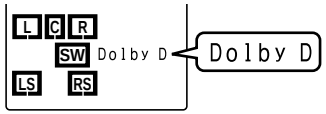


Note:
For 5.1 channel playback, it is not recommended to place the surround speakers in front. When placing the speakers as shown, select "DVS ON".

Enjoying surround sound (sound mode) (continued)

Dolby Digital **Unit display**

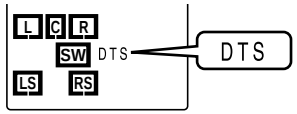
Disc with this trademark



A 5.1 surround sound decoding used for home theatre surround sound. You can enjoy the stereophonic effect in the home theatre system.
When you set the audio output to Dolby Digital for a disc recorded in Dolby Digital, the "DolbyD" indicator lights up (see page 28).

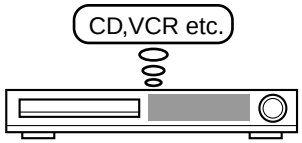
DTS (Digital Theater Systems) **Unit display**

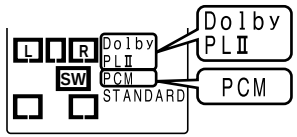
Disc with this trademark



A 5.1 surround sound decoding used for home theatre surround sound. As the sound quality is emphasised, you can enjoy the realistic sound effect in the home theatre system.
When you set the audio output to DTS for a disc recorded in DTS, the "DTS" indicator lights up (see page 28).

Unit display





Linear PCM
A signal recording format without compression
Used in DVD and CD featuring a musical or concert.

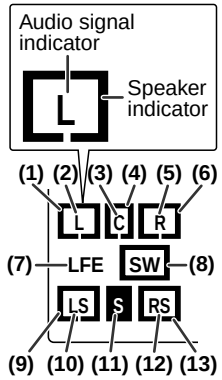
Dolby Pro Logic Ⅱ
Stereo-recorded discs and videotapes
Dolby Pro Logic Ⅱ decodes 2 channel stereo sound from discs, videotapes, etc. to reproduce 5.1 channel surround sound. You can enjoy a three-dimensional sound field.

When Dolby Pro Logic Ⅱ is activated, the "Dolby PLⅡ" indicator lights up.

■ Audio signal/Speaker indicators

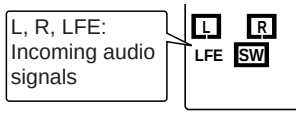
Audio signal indicators light up for the corresponding audio source, and speaker indicators are illuminated according to signals sent to the speakers.

(1) Left Front Speaker Indicator
(2) Left Indicator
(3) Centre Indicator
(4) Centre Speaker Indicator
(5) Right Indicator
(6) Right Front Speaker Indicator
(7) Low Frequency Effect Indicator
(8) Subwoofer Indicator
(9) Left Surround Speaker Indicator
(10) Left Surround Indicator
(11) Surround Monaural Signal Indicator
(Lights up when the surround speakers receive monaural signals.)
(12) Right Surround Indicator
(13) Right Surround Speaker Indicator



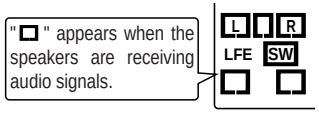
Example:

When 2.1 channel audio signals (L, R, LFE) are received, the audio signal indicators "L", "R" and "LFE" light up.
The illustration on the right indicates that 2 channel stereo sound (L and R) is reproduced.



When Dolby Pro Logic Ⅱ is activated

2 channel stereo sound is converted to 5.1 channel surround sound, and all the speaker indicators "□" light up.

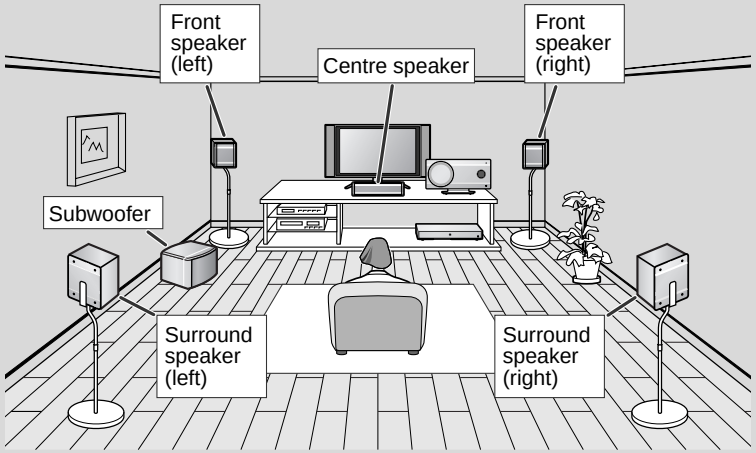


Notes:

- You can switch the audio output when the disc contains sounds of multiple audio formats (Dolby Digital, DTS, etc.). See page 28.
- Sound may not be produced from the subwoofer depending on the disc.
- You cannot change the multi channel mode or stereo mode whilst listening to the radio.
- If sound is unpleasant to listen to, change the multi channel mode or stereo mode.
- Settings for the multi channel mode and stereo mode are retained by input (DVD/CD, TUNER, DIG1, DIG2, TV and VCR).

Changing the default settings of the amplifier

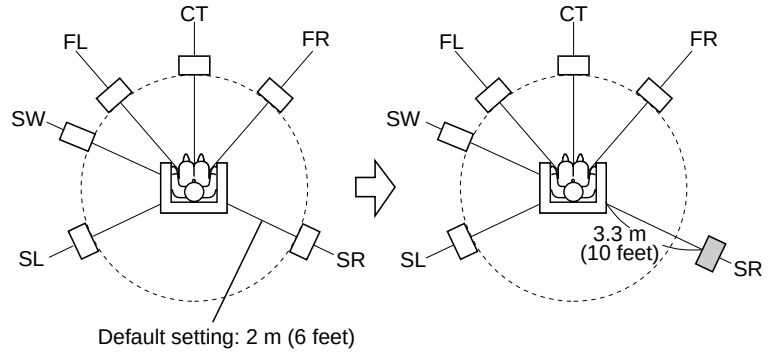
Installation image (with optional accessories):



Change settings according to the connected speakers.

Speaker delay setting (See page 43.)
Speaker level setting (See page 44.)
Test tone (See page 44.)

Example:
If the right surround speaker is 3.3 m (10 feet) away from the listening position, change settings as shown below (adjust the SR).

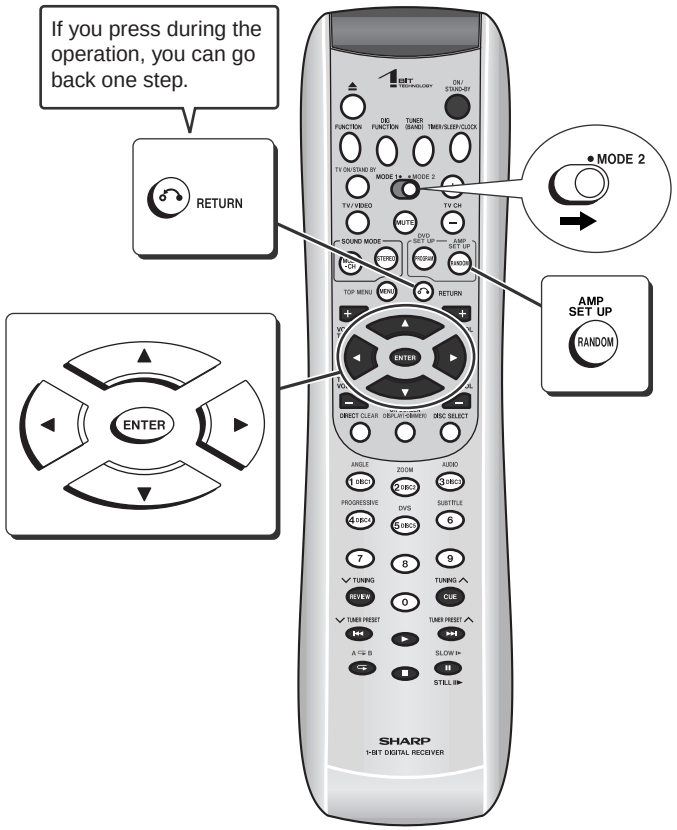


1 In "Speaker delay setting", set the right surround speaker (SR) to 3.3 m (10 feet).
2 In "Speaker level setting", slightly increase the level of the right surround speaker as it is a little farther than others (see page 44).
3 In "Test tone", check the sound from each speaker (see page 44).

Note:
The subwoofer setting applies to a subwoofer connected to SUBWOOFER PREOUT.

Changing the default settings of the amplifier (continued)

Switch the function to "DVD" to change the default settings of the amplifier.



■ Speaker delay setting

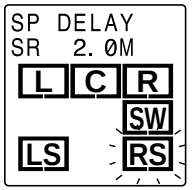
When some of the speakers are at a different distance from the listening point, you can select the speaker delay to make it seem as though the speaker distances are the same.

1 Set the MODE 1/MODE 2 switch to MODE 2 and press the AMP SET UP button.

2 Within 10 seconds, press the ◄ or ► button to select "SP DELAY", and press the ENTER button.

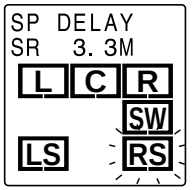
3 Within 30 seconds, press the ◄ or ► button to select the desired speaker.

The indicator of the selected speaker flashes.



4 Within 30 seconds, press the ▲ or ▼ button to select the distance.

- You can change the distance in 0.1 m (4") steps.
- To set the distance of other speakers, repeat the operation from step 3.



5 Press the ENTER button to apply the setting.

6 Press the RETURN ↩ button.

The setting is complete.

Speaker type		Delay range	Default setting
FL	Front speaker (left)	0.1 to 9.0 m	2 m (6 ft)
CT	Centre speaker	0.1 to 9.0 m	2 m (6 ft)
FR	Front speaker (right)	0.1 to 9.0 m	2 m (6 ft)
SR	Surround speaker (right)	0.1 to 9.0 m	2 m (6 ft)
SL	Surround speaker (left)	0.1 to 9.0 m	2 m (6 ft)
SW	Subwoofer	0.1 to 9.0 m	2 m (6 ft)

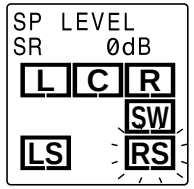
■ Speaker level setting

If sounds from the speakers are uneven, you can equalise them by adjusting the speaker levels.

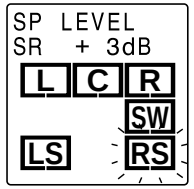
1 Set the MODE 1/MODE 2 switch to MODE 2 and press the AMP SET UP button.

2 Within 10 seconds, press the ◄ or ► button to select "SP LEVEL", and press the ENTER button.

3 Within 10 seconds, press the ◄ or ► button to select the desired speaker.
The indicator of the selected speaker flashes.



4 Within 10 seconds, press the ▲ or ▼ button to adjust the level.
- You can adjust the level at 1 dB intervals.
- To adjust the levels of other speakers, repeat the operation from step 3.



5 Press the RETURN ↩ button twice.
The setting is complete.

Speaker type		Level range	Default setting
FL	Front speaker (left)	- 6 dB to + 6 dB	0 dB
CT	Centre speaker	- 6 dB to + 6 dB	0 dB
FR	Front speaker (right)	- 6 dB to + 6 dB	0 dB
SR	Surround speaker (right)	- 6 dB to + 6 dB	0 dB
SL	Surround speaker (left)	- 6 dB to + 6 dB	0 dB
SW	Subwoofer	- 10 dB to + 10 dB	+ 3 dB

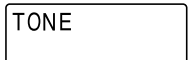
Note:
If subwoofer sound is distorted, lower the subwoofer level.

■ Test tone

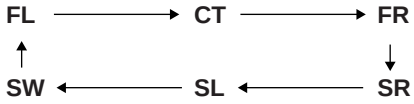
You can check each speaker sound by a test tone. Readjust the volume set in "Speaker level setting".

1 Set the MODE 1/MODE 2 switch to MODE 2 and press the AMP SET UP button.

2 Within 10 seconds, press the ◄ or ► button to select "TONE", and press the ENTER button.



The test tone will be heard from each speaker, in order, at about 2-second intervals.



To adjust speaker levels

Whilst the test tone is heard:

Adjust the level with the ▲ or ▼ button.

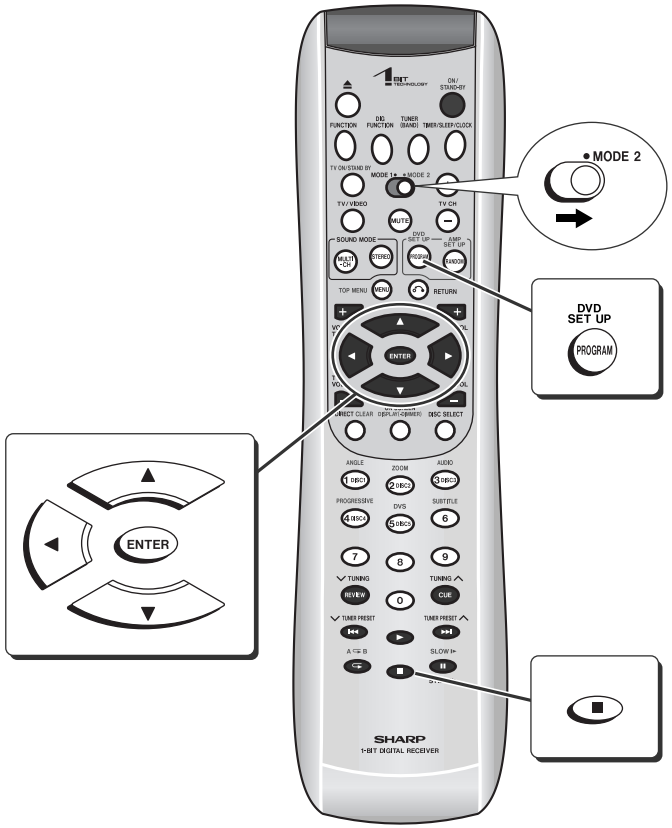
Press the ◄ or ► to select a speaker.

3 Press the RETURN ↩ button twice.

The setting is complete.

Changing the initial setting of DVD

A new setting will be retained in memory even if the unit is set to the stand-by mode.
If you want to restore or change the setting, you must reset it.

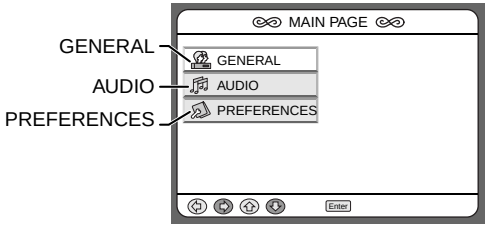


1 **After playing a disc, enter the stop mode.**

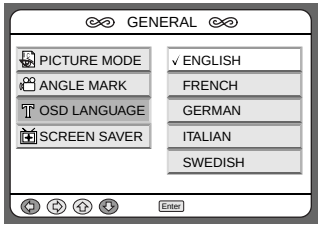
In resume play, the initial setting cannot be changed.

2 **Set the MODE 1/MODE 2 switch to MODE 2 and press the DVD SET UP button.**

3 **Press the ▲ or ▼ button to select the main menu and press the ENTER button.**



4 **Press the ▲ or ▼ button to select the submenu and press the ENTER button.**



- To return to the previous display, press the ◄ button.
- For details on submenu items, see pages 46, 47.

5 **Press the ▲ or ▼ button to change the setting and press the ENTER button.**

- To return to the previous display, press the ◄ button.
- To change other settings, begin from step 3.

6 **Press the DVD SET UP button.**

The new setting is memorised.

Setting	Selectable parameters (* indicates initial settings.)		Description
GENERAL	PICTURE MODE	AUTO*	Images are automatically optimised according to the video source.
		FILM	Suitable for progressive video output. Select this setting for DVD movies, etc.
		VIDEO	Suitable for interlaced video output. Select this setting for DVD karaoke, etc.
		SMART	Optimise special effects for progressive video output.
		SUPER SMART	Special effects are further enhanced compared with "SMART".
	ANGLE MARK	ON*	You can switch camera angles if available on the recorded disc.
		OFF	The angle mark does not appear.
	OSD LANGUAGE	ENGLISH* FRENCH GERMAN ITALIAN SWEDISH PORTUGUESE SPANISH	You can select the desired OSD (On Screen Display) language for the setup menu or playback control screen.
	SCREEN SAVER	ON*	When the unit is left unoperated for more than 2 minutes after pressing the ■ (STOP) button, a screen saver appears. Press any button on the main unit or remote control. The startup screen returns.
		OFF	Cancel the screen saver setting.
AUDIO	AUDIO OUT	BIT STREAM*	Choose this when connecting the unit to a Dolby Digital/DTS (5.1 ch) surround amplifier. When playing a DVD recorded in Dolby Digital or DTS, bitstream output allows you to enjoy the 5.1 ch surround sound.
		PCM	Choose this for PCM output. When playing a DVD recorded in Dolby Digital, the output converts to 2 channel PCM. When a DVD recorded in DTS is played back, signals are sent in bitstream.
	LPCM OUTPUT	LPCM 48K LPCM 96K*	If LPCM 48k is selected, PCM sound signals recorded at 96 kHz are converted to 48 kHz.
PREFERENCES	TV DISPLAY	NORMAL/PS	When playing a wide image (16:9) disc, the left and right sides of the image are cut (pan scan) to display a natural-looking 4:3 size image. A 4:3 disc is played in 4:3.
		NORMAL/LB*	When playing a wide image (16:9) disc, black bands are inserted at the top and bottom and you can enjoy full wide images (16:9) on a 4:3 size TV. A 4:3 disc is played in 4:3.
		WIDE	A wide image (16:9) is displayed when playing a wide image (16:9) disc. ● When playing a 4:3 image disc, the image size depends on the setting of the connected TV. ● If you play back a wide image (16:9) disc with the unit connected to a 4:3 TV, images appear stretched vertically.

Continued to the next page

Changing the initial setting of DVD (continued)

Setting	Selectable parameters (* indicates initial settings.)		Description
PREFERENCES	TV TYPE	MULTI. SYSTEM	Select this mode for the multi-system TV.
		NTSC	Select this mode for the NTSC TV.
		PAL*	Select this mode for the PAL TV.
	AUDIO	ENGLISH* ⋮ OTHERS..	A language for audio can be set. You can specify a language for dialogues and narration.
	SUBTITLE	ENGLISH ⋮ OTHERS.. OFF*	A language for subtitle can be set. The subtitle is displayed in a specified language.
	DISC MENU	ENGLISH* ⋮ OTHERS..	A language for disc menus can be set. Menu screens are displayed in a specified language.
	COUNTRY	USA* ⋮ CHINA	Set a country code according to a parental control level of discs.
	PARENTAL	1	Only DVD software intended for children can be played back.
		2 ⋮ 7	Only DVD software intended for general use and children can be played back.
		8	DVD software of any grade (adult/general/children) can be played back.
		NO PARENTAL*	Parental control is cancelled.
	DEFAULTS	DEFAULTS	This resets all settings, except for PARENTAL and PASSWORD, to the factory defaults.
	PASSWORD	- - - -	Change the password (for details, see page 48).

■ Parental setting

1 Select "PREFERENCES" on the setup menu screen (see steps 1 - 3 on page 45).

2 Select "PARENTAL" in step 4 on page 45.

3 Set the MODE 1/MODE 2 switch to MODE 1.

4 Enter a 4-digit password using the direct number buttons.
If this is the first time, enter "5454".

5 Set the parental level (see page 47) and press the ENTER button.

Note:
Whilst playing a disc with parental control, a display may appear requesting a password in order to watch some restricted scenes. In such a case, enter the password to temporarily change the control level.

■ Password setting

From the setup menu, select "PREFERENCES" and then "PASSWORD". A screen appears.

1 Set the MODE 1/MODE 2 switch to MODE 1.

2 Enter the old password using the direct number buttons.

3 Enter the new password using the direct number buttons.

4 Enter the new password again for confirmation.

Note:
When you forget your password, cancel the current password by pressing "5454" using the direct number buttons (0 - 9).

■ Selecting a language for "OTHERS"

Check the code of the language.
Example: When you select 1229 (Hungarian)

1 Select "PREFERENCES" on the setup menu screen (see steps 1 - 3 on page 45).

2 After selecting "AUDIO", "SUBTITLE" or "DISC MENU" in step 4 on page 45, select "OTHERS" and press the ENTER button.

3 Set the MODE 1/MODE 2 switch to MODE 1.

4 Enter "1229" with the direct number buttons and press the ENTER button.

■ Language code list

Code	Language name	Code	Language name	Code	Language name
1027	Afar	1245	Inupiaq	1489	Russian
1028	Abkhazian	1248	Indonesian	1491	Kinyarwanda
1032	Afrikaans	1253	Icelandic	1495	Sanskrit
1039	Amharic	1254	Italian	1498	Sindhi
1044	Arabic	1257	Hebrew	1501	Sango
1045	Assamese	1261	Japanese	1502	Serbo-Croatian
1051	Aymara	1269	Yiddish	1503	Singhalese
1052	Azerbaijani	1283	Javanese	1505	Slovak
1053	Bashkir	1287	Georgian	1506	Slovenian
1057	Byelorussian	1297	Kazakh	1507	Samoan
1059	Bulgarian	1298	Greenlandic	1508	Shona
1060	Bihari	1299	Cambodian	1509	Somali
1069	Bislama	1300	Kannada	1511	Albanian
1066	Bengali; Bangla	1301	Korean	1512	Serbian
1067	Tibetan	1305	Kashmiri	1513	Siswati
1070	Breton	1307	Kurdish	1514	Sesotho
1079	Catalan	1311	Kirghiz	1515	Sundanese
1093	Corsican	1313	Latin	1516	Swedish
1097	Czech	1326	Lingala	1517	Swahili
1103	Welsh	1327	Laotian	1521	Tamil
1105	Danish	1332	Lithuanian	1525	Telugu
1109	German	1334	Latvian, Lettish	1527	Tajik
1130	Bhutanese	1345	Malagasy	1528	Thai
1142	Greek	1347	Maori	1529	Tigrinya
1144	English	1349	Macedonian	1531	Turkmen
1145	Esperanto	1350	Malayalam	1532	Tagalog
1149	Spanish	1352	Mongolian	1534	Setswana
1150	Estonian	1353	Moldavian	1535	Tonga
1151	Basque	1356	Marathi	1538	Turkish
1157	Persian	1357	Malay	1539	Tsonga
1165	Finnish	1358	Maltese	1540	Tatar
1166	Fiji	1363	Burmese	1543	Twi
1171	Faeroese	1365	Nauruan	1557	Ukrainian
1174	French	1369	Nepali	1564	Urdu
1181	Frisian	1376	Dutch	1572	Uzbek
1183	Irish	1379	Norwegian	1581	Vietnamese
1186	Scots Gaelic	1393	Occitan	1587	Volapuk
1194	Galician	1403	(Afan) Oromo	1613	Wolof
1196	Guarani	1408	Oriya	1632	Xhosa
1203	Gujarati	1417	Punjabi	1665	Yoruba
1209	Hausa	1428	Polish	1684	Chinese
1217	Hindi	1435	Pashto, Pushto	1697	Zulu
1226	Croatian	1436	Portuguese		
1229	Hungarian	1463	Quechua		
1233	Armenian	1481	Rhaeto-Romance		
1235	Interlingua	1482	Kirundi		
1239	Interlingue	1483	Romanian		

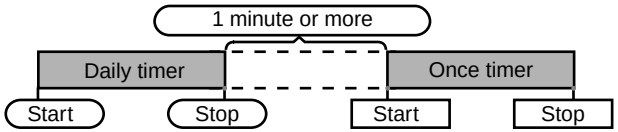
Setting the timer

The unit starts playback or turns on the radio at a specified time.
This unit has 2 types of timer functions: "once timer" and "daily timer".

Once timer:
Once timer playback works for one time only at a preset time.
Use when...
You want to listen to a radio programme on the day.
(After operation, the timer setting is cancelled.)

Daily timer:
Daily timer playback works at the same preset time every day.
Use when...
You want to use the timer as a wake-up call, or listen to the radio at the same time every day.

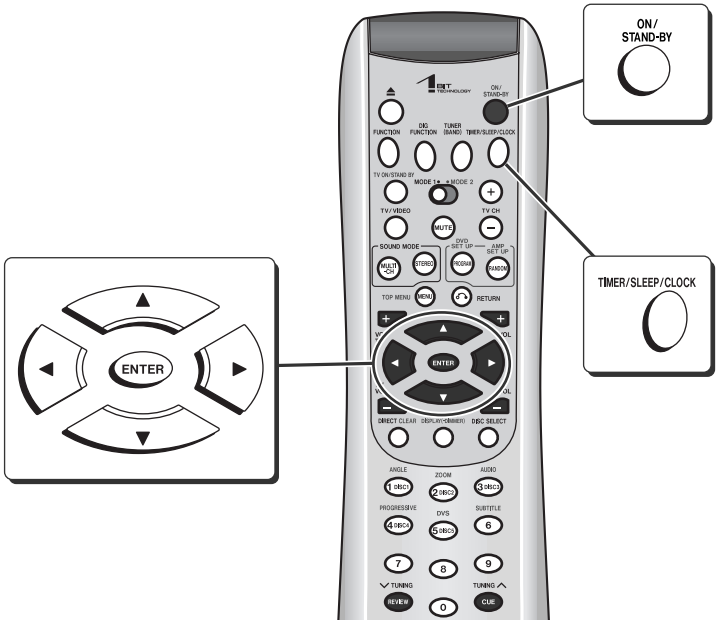
You can use the once timer and daily timer together.
For example, use the timer as a wake-up call (daily timer), and listen to the radio later on the day.
1 Set the daily timer (page 50).
2 Set the once timer (page 50).



Note:
If both timers are set for the same time, the once timer setting will start.
When using both timers, allow at least 1 minute between operations. Otherwise the timer used later will not work.

Before setting timer:

1 Set the clock (see page 20).
If the clock is not set to the correct time, the timers do not work properly.
2 Prepare a source to play back.
- Insert a disc to play.
- To use the radio for timer playback, store a station (see page 38).



Notes:
- When you use the timer to play a DVD with a menu screen, playback stops at the menu screen.
- If the unit is unplugged or a power failure occurs after timer setting, the clock stops and the timer setting will be cancelled. Set the clock and timer again.
- You cannot use the timer to operate other equipment.
- Timer playback does not start if the unit is turned on at the start time.

1 **Turn on the unit, and press the TIMER/SLEEP/CLOCK button.**

2 **Within 10 seconds, press the ▲ or ▼ button to select "ONCE TIMER" or "DAILY TIMER", and press the ENTER button.**

Once timer

```
ONCE TIMER
DAILY ----
ONCE  ----
SLEEP ----
```

Daily timer

```
DAILY TIMER
DAILY ----
ONCE  ----
SLEEP ----
```

3 **Within 10 seconds, press the ▲ or ▼ button to select "ONCE SET" or "DAILY SET", and press the ENTER button.**

Once timer

```
ONCE SET
DAILY ----
ONCE  ----
SLEEP ----
```

Daily timer

```
DAILY SET
DAILY ----
ONCE  ----
SLEEP ----
```

4 **Press the ◄ or ► button to adjust the hour and then press the ENTER button.**

```
ON     7:00
DAILY ----
ONCE  ----
SLEEP ----
```

5 **Press the ◄ or ► button to adjust the minutes and then press the ENTER button.**

```
ON     7:30
DAILY ----
ONCE  ----
SLEEP ----
```

6 **Set the time to finish as in steps 4 and 5 above.**

```
OFF    8:30
DAILY ----
ONCE  ----
SLEEP ----
```

7 **Switch the input with the ◄ or ► button, and then press the ENTER button.**

- Available playback sources: DVD/CD, TUNER, DIGITAL 1, DIGITAL 2, TV and VCR.
- If you select DIGITAL 1, DIGITAL 2, TV or VCR, connect the unit to the corresponding equipment and set the timer.

  When you select "TUNER", select a station by pressing the ◄ or ► button, and then press the ENTER button.
- If a station has not been programmed, "NO P.SET" will be displayed and timer setting will be cancelled.

Preset channel number

```
P 1  88.00M
```

8 **Adjust the volume with the ◄ or ► button and press the ENTER button.**

Do not set the volume too high.

```
VOLUME 15
DAILY ----
ONCE  ----
SLEEP ----
```

9 **The following appear and the setting for each item is displayed.**

Once timer

```
ONCE TIMER
DAILY ----
ONCE  PLAY
SLEEP ----
```

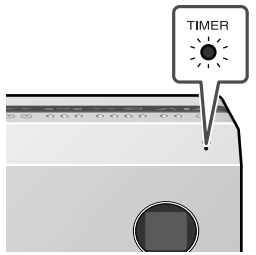
Daily timer

```
DAILY TIMER
DAILY PLAY
ONCE  ----
SLEEP ----
```

10 **Press the ON/STAND-BY button to enter the power stand-by mode.**

- The unit enters the timer stand-by mode.

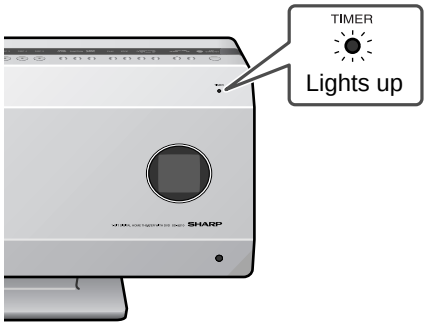
  (The timer set indicator lights up. See page 51.)
- The timer setting is retained.



SHARP TINSZA124AWZZ (W)

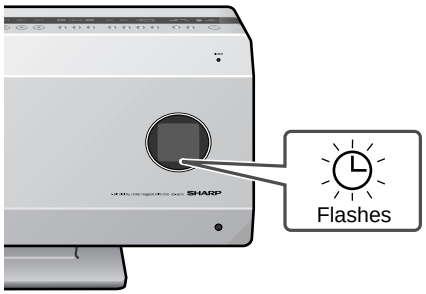
Operations after setting the timer

1 After setting the timer



- When the timer is set, the timer set indicator lights up.
- If the timer set indicator does not light up, set the timer again.

2 At the start time



The volume will increase gradually until it reaches the preset volume.

3 When the end time is reached

The unit is set to the power stand-by mode automatically.

■ Checking the timer setting

1 Press the TIMER/SLEEP/CLOCK button.
2 Within 10 seconds, press the ▲ or ▼ button to select "ONCE TIMER" or "DAILY TIMER", and press the ENTER button.
3 Within 10 seconds, press the ▲ or ▼ button to select "ONCE CALL" or "DAILY CALL", and press the ENTER button.
The unit returns to the timer stand-by mode after displaying the settings in order.

■ Cancelling the timer setting

1 Press the TIMER/SLEEP/CLOCK button.
2 Within 10 seconds, press the ▲ or ▼ button to select "ONCE TIMER" or "DAILY TIMER", and press the ENTER button.
3 Within 10 seconds, press the ▲ or ▼ button to select "ONCE OFF" or "DAILY OFF", and press the ENTER button.
Timer will be cancelled (the setting will be retained).

■ Changing the timer setting

Perform steps 1 - 10 on page 50 to set the timer again.

■ To use the same timer setting

Once timer:

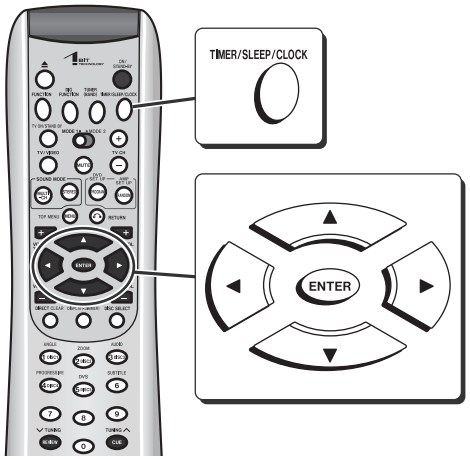
1 Turn on the unit, and press the TIMER/SLEEP/CLOCK button.
2 Within 10 seconds, press the ▲ or ▼ button to select "ONCE TIMER", and press the ENTER button.
3 Within 10 seconds, press the ▲ or ▼ button to select "ONCE ON", and press the ENTER button.
4 Press the ON/STAND-BY button to enter the power stand-by mode.

Daily timer:

The timer will operate at the same time every day. It will continue until the daily timer setting is cancelled. Cancel the daily timer when it is not in use.
When you use the same setting for the daily timer, select "DAILY TIMER" instead of "ONCE TIMER", and select "DAILY ON" instead of "ONCE ON".

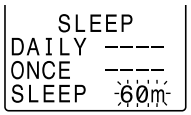
Sleep timer

The unit turns off at a specified time when listening to a disc or the radio.



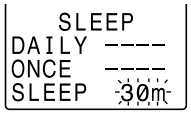
1 **During playback, press the TIMER/SLEEP/CLOCK button.**

2 **Within 10 seconds, press the ▲ or ▼ button to select "SLEEP", and press the ENTER button.**



3 **Press the ◄ or ► button to select the time.**

The default is 60 minutes. Time changes by 5 minutes (5 - 120) and decreases by 1 minute (5 - 1).

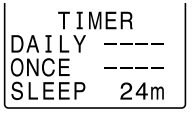


4 **Press the ENTER button.**

- The unit will enter the power stand-by mode automatically after the preset time has elapsed.
- The volume will be turned down 1 minute before the sleep operation finishes, and then you cannot change the volume.

To confirm the remaining sleep time:

Press the TIMER/SLEEP/CLOCK button.



To cancel the sleep operation:

Press the ON/STAND-BY button whilst "SLEEP" is indicated.

To cancel the sleep operation without setting the system to the stand-by mode, proceed as follows.

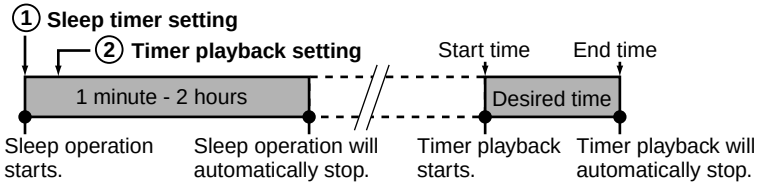
1 Press the TIMER/SLEEP/CLOCK button.
2 Within 10 seconds, press the ▲ or ▼ button to select "SLEEP OFF".
3 Within 10 seconds, press the ENTER button. ("SLEEP" goes out.)

■ To use timer and sleep operation together

For example, you can fall asleep to the radio, and wake up to CD.

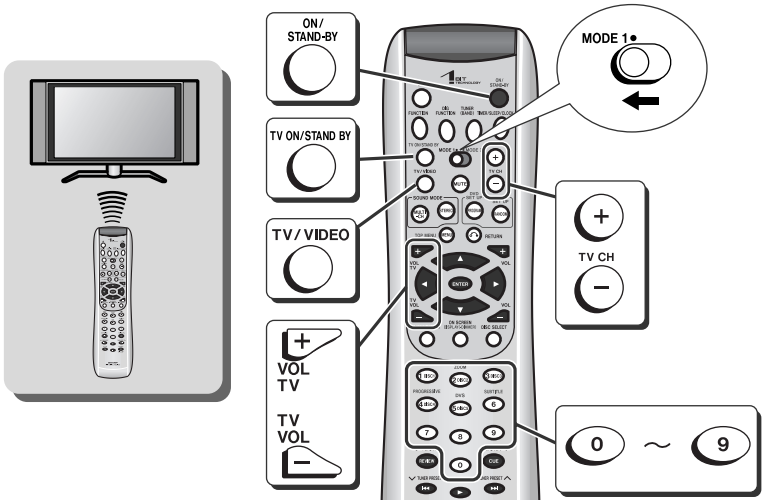
1 Set the sleep time (steps 1 - 4).
2 Set the timer playback (steps 1 - 8, page 50).

The unit enters the power stand-by mode after the time is set for sleep timer, and turns on at the start time of the timer playback.



Operating the connected TV

You can operate SHARP TVs with the remote control. Change the remote control setting if operating other manufacturers' TV, or if you cannot operate a SHARP TV.



■ Watching TV

1 Press the TV ON/STAND BY button to turn on the TV.

2 Press the TV CH (- or +) button to set the channel.

Other buttons available for operating TVs

Operation	Button
Volume control	VOL TV (+) / TV VOL (−)
Switching the input	TV/VIDEO

■ Changing the TV registration

1 Set the MODE 1/MODE 2 switch to MODE 1.

2 Whilst holding down the ON/STAND-BY button, enter the manufacturer setting number (4 digits).

3 Release the ON/STAND-BY button.

The setting is registered and the TV can be operated with the remote control of this unit.

Notes:

- You cannot operate some SHARP TVs with the remote control.
- As for manufacturers with 2 or more setting numbers, select one with which you can operate the TV.
- Once you set a number, the number previously memorised will be cancelled.
- After replacing the batteries in the remote control, the registered number may automatically be set to 1044 (SHARP). If it occurs, register the desired number again.
- Registration may not work on some TVs. Even if numbers can be set, some buttons may not work.

TV manufacturer	Setting number	TV manufacturer	Setting number
SHARP	1011, 1025, 1044(*)	BELL & HOWELL	1005, 1021
AIWA	1052	BROCKWOOD	1007
ADMIRAL	1037	BROKSONIC	1032, 1037
AIKO	1019	CANDLE	1009, 1015
AKAI	1009	CARNIVALE	1009
ALARON	1031	CARVER	1014, 1026
AMBASSADOR	1029	CELEBRITY	1001
AMPRO	1045	CINERAL	1019, 1036
AMSTRAD	1034	CITIZEN	1009, 1011, 1015,
ANAM	1004, 1024, 1035		1016, 1019
ANAM NATIONAL	1024, 1035	CME	1039
AOC	1007, 1009	CONCERTO	1015
AUDIOVOX	1019, 1036, 1041	CRAIG	1024
BAUR	1039	CROSLEY	1014
BELCOR	1007	CROWN	1011

(*): The default manufacturer number is 1044 (SHARP).

TV manufacturer	Setting number	TV manufacturer	Setting number
CURTIS MATHES	1005, 1009, 1011, 1012, 1013, 1014, 1015, 1016, 1020, 1021, 1036, 1038, 1044, 1048, 1050	INTEQ	1006
		INTERFUNK	1039
		JBL	1014
		JCB	1001
		JVC	1018, 1023
DAEWOO	1007, 1011, 1017, 1019, 1021, 1036, 1041, 1042	KENWOOD	1007, 1009
		KONIG	1039
		KTV	1009, 1011
DAYTRON	1007	LG	1015
DENON	1020	LOEWE	1039
DUMONT	1006, 1007	LOGIK	1005
DWIN	1044, 1046	LUXMAN	1015
ELECTRONBAND	1001	LXI	1012, 1014, 1021, 1022, 1030
EMERSON	1007, 1010, 1011, 1021, 1029, 1030, 1031, 1032, 1037, 1041, 1042	MAGNAVOX	1009, 1014, 1031
		MAJESTIC	1005
		MARANTZ	1009, 1014
ENVISION	1009	MEGATRON	1020, 1030
ETRON	1043	MEMOREX	1005, 1015, 1021, 1030, 1037
FISHER	1021		
FORTRESS	1044	METZ	1007, 1009, 1030
FUJITSU	1031	MGA	1007, 1009, 1028
FUNAI	1027, 1031	MIDLAND	1006, 1011, 1012, 1013
GE	1008, 1012, 1013, 1030, 1036, 1048, 1050	MINOKA	1034
		MINUTZ	1008
GIBRALTER	1006, 1007, 1009	MITSUBISHI	1007, 1030, 1039
GOLDSTAR	1002, 1007, 1009, 1011, 1015, 1030	MTC	1007, 1009, 1015, 1016, 1039
GRADIENTE	1015, 1026	NAD	1022, 1030
GRANADA	1033	NEC	1007, 1009, 1015, 1026
GRUNPY	1031		
HALLMARK	1030	NIKKO	1009, 1019, 1030
HARLEY DAVIDSON	1031	NTC	1019
HARMAN/KARDON	1014	OPTIMUS	1021
HCM	1034	OPTONICA	1025, 1044
HITACHI	1010, 1015, 1020	ORION	1031, 1032, 1037
INFINITY	1014	OSAKA	1034

TV manufacturer	Setting number	TV manufacturer	Setting number
OTTO	1039	SCOTT	1007, 1030, 1031, 1032
PANASONIC	1013, 1024		
PENNEY	1003, 1007, 1008, 1009, 1011, 1012, 1013, 1015, 1016, 1022, 1030, 1050	SEARS	1012, 1014, 1015, 1021, 1022, 1027, 1030, 1031
		SEMP	1022
PHILCO	1007, 1009, 1014, 1020, 1037	SHOGUN	1007
		SIGNATURE	1005
PHILIPS	1014	SONY	1001
PILOT	1007, 1009, 1011	SOUNDESIGN	1030, 1031
PIONEER	1010, 1028	SQUAREVIEW	1027
PORTLAND	1007, 1011, 1019	SSS	1007
PRISM	1013	SUPREME	1001
PROSOCAN	1012	SYLVANIA	1009, 1014
PROTON	1030, 1038	SYMPHONIC	1027
PULSAR	1006, 1007	TANDY	1044
QUASAR	1013, 1025	TECHNICS	1013
QUELLE	1039	TECHNOL ACE	1031
RADIO SHACK	1007, 1009, 1011, 1012, 1015, 1028, 1030	TECHWOOD	1013, 1015
		TEKNIKA	1005, 1007, 1011, 1014, 1015, 1016, 1019, 1031
RCA	1007, 1010, 1012, 1013, 1044, 1047, 1048, 1049, 1050, 1051	TELEFUNKEN	1015
		THORN	1039
		TMK	1015, 1029, 1030
REALISTIC	1007, 1009, 1011, 1015, 1021, 1025, 1030	TOSHIBA	1016, 1021, 1022
		TOTEVISION	1011
		VECTOR RESEARCH	1009
RUNCO	1006, 1009, 1040	VICTOR	1023
SAMPO	1009, 1011	VIDIKRON	1014
SAMSUNG	1007, 1009, 1015, 1016, 1030	VIDTECH	1007, 1030
		WARDS	1005, 1007, 1008, 1009, 1014, 1015, 1025, 1030, 1031
SAMSUX	1011		
SANSEI	1036		
SANSUI	1037	WHITE WESTINGHOUSE	1037, 1041, 1042
SANYO	1021, 1033		
SCIMITSU	1007	YAMAHA	1007, 1009
SCOTCH	1030	ZENITH	1005, 1006, 1019, 1037

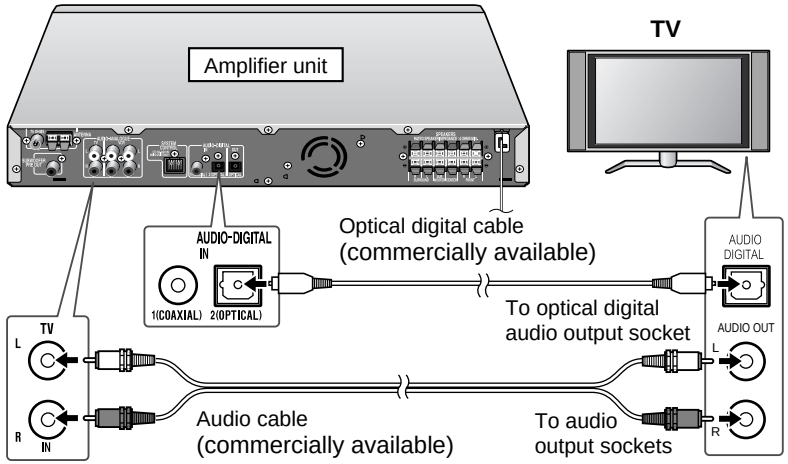
Connecting other equipment

Turn off the other equipment before making this connection.

- An optical digital cable, audio digital cable and audio cable are not included. Purchase a commercially available cable.
- If using an audio cable, purchase one without resistance. If you use an audio cable with resistance, sound volume will decrease.
- Plug in each cable fully to prevent noise interference.

■ Audio connection to TV

You can listen to TV sound from the speakers by connecting the amplifier unit using an optical digital cable or audio cable (not supplied).



To listen to TV sound:

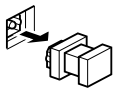
Turn the power on and press the FUNCTION button on the main unit.
Each press of this button changes the input in the order of "DIG1"→"DIG2"→"TV"→"VCR".

DIG2: The audio input is switched to "AUDIO-DIGITAL IN 2 (OPTICAL)".
TV: The audio input is switched to "AUDIO-ANALOGUE TV IN".

You can also use the DIG FUNCTION (DIG1/DIG2) or FUNCTION (TV/VCR) button on the remote control.

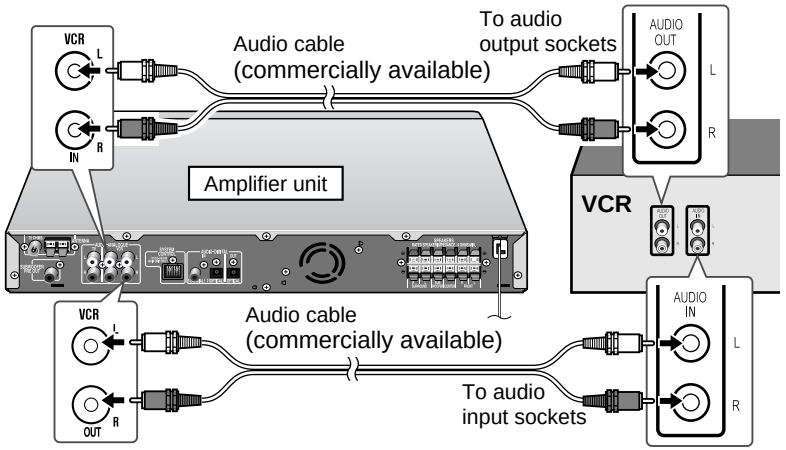
Note:

When using the optical digital socket, remove the cap first. After using the socket, replace the cap.



■ Audio connection to VCR

You can listen to VCR sound from the speakers by connecting the amplifier unit using an audio cable (not supplied).



To listen to VCR sound:

Turn the power on and press the FUNCTION button on the main unit.
Each press of this button changes the input in the order of "DIG1"→"DIG2"→"TV"→"VCR".

VCR: The audio input is switched to "AUDIO-ANALOGUE VCR IN".

You can also use the FUNCTION (TV/VCR) button on the remote control.

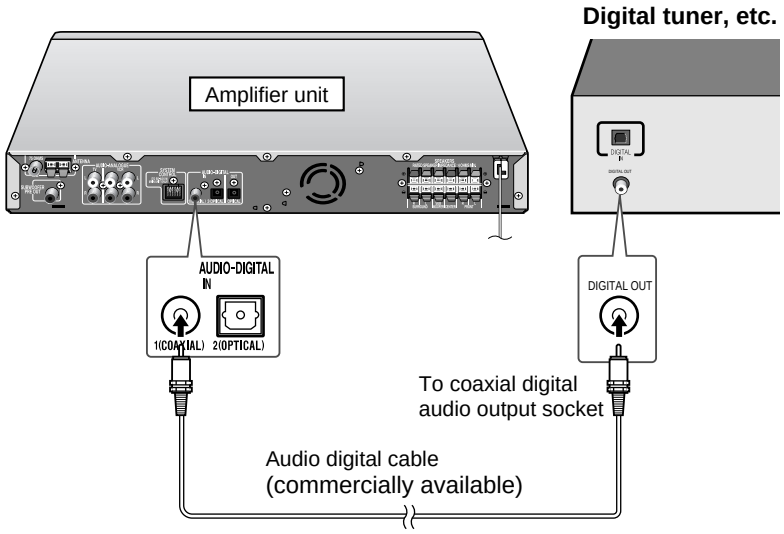
To record sound from the main unit, connect the VCR audio output sockets (amplifier) with audio input sockets (VCR).

Notes:

- The audio VCR output sockets send signals coming from a DVD/CD, the tuner, audio TV input sockets and digital audio input socket. Signals from the audio VCR input sockets are not sent.
- When sending signals coming from the digital audio input socket via the audio VCR output sockets on the unit, set the stereo mode to STEREO (see page 39). In the multi channel mode, signals may not be sent properly. When sending signals from the digital audio input socket to the audio VCR output sockets, the audio output level decreases. (Leave headphones unplugged whilst recording to avoid further level decrease.)

■ Audio connection to digital tuner, etc.

You can listen to digital tuner sound from the speakers by connecting the amplifier unit using an audio digital cable (not supplied).



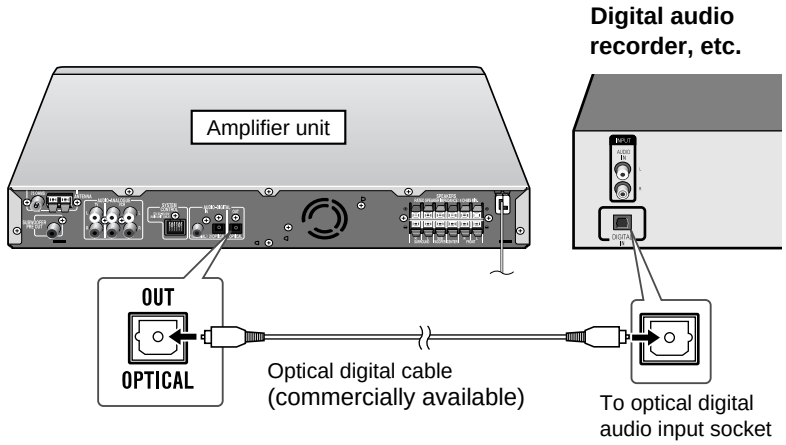
To listen to sound from a digital tuner, etc.:
Turn the power on and press the FUNCTION button on the main unit.
Each press of this button changes the input in the order of "DIG1"→"DIG2"→"TV"→"VCR".

DIG1: The audio input is switched to "AUDIO-DIGITAL IN 1 (COAXIAL)".

You can also use the DIG FUNCTION (DIG1/DIG2) button on the remote control.

■ Digital connection to a digital audio recorder, etc.

You can record sound on a digital audio recorder by connecting to the digital audio output socket using an optical digital cable.



When connecting a digital audio recorder to the digital audio output socket, set "AUDIO OUT" to "PCM" (see page 46).

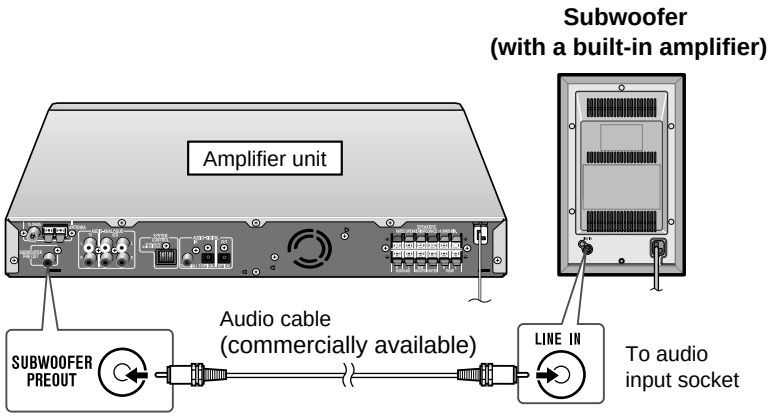
BIT STREAM	For 5.1 channel Dolby Digital/DTS surround processors, etc.
PCM	For 2 channel digital input amplifiers, etc.

Notes:
- Some discs are copy protected and digital recording is not possible (including DTS signals).
- The digital audio output socket sends signals coming from a DVD/CD, and the digital audio input socket. Signals from the tuner, audio TV input sockets and audio VCR input sockets are not sent.
- When you play DVD discs with Linear PCM sound recorded at a 96 kHz sampling rate, sound may be sampled at 96 kHz (or 48 kHz depending on the disc).
- Plug in each cable fully to prevent noise interference.

Connecting other equipment (continued)

■ Using other subwoofer

You can connect a subwoofer with an amplifier to the subwoofer pre output socket.

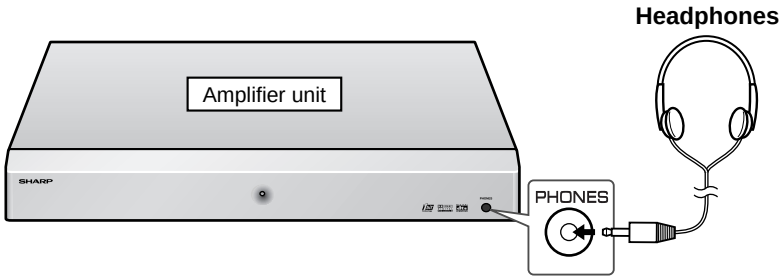


Notes:

- No sound is heard from the subwoofer if an amplifier is not built in.
- When two subwoofers are connected, both subwoofers reproduce sound. Changes in the speaker setting apply to both subwoofers (see pages 43, 44).

■ Headphones

- Before plugging in or unplugging the headphones, reduce the volume.
- Be sure your headphones have a 3.5 mm (1/8") diameter plug and impedance between 16 and 50 ohms. The recommended impedance is 32 ohms.
- Whilst headphones are connected, sound is not produced from the speakers.
- You cannot use the surround feature with headphones.



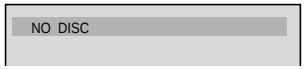
Error indicators and warnings

When you load an unplayable disc or fail to perform operations properly, the following messages are displayed on the unit and the TV screen.

Display	Meaning
CHECK CARRY	● Disc is not carried. Try the operation again.
CHECK D**	● Changer drum cam is not moved. Try the operation again.
CHECK LOCK	● Disc tray is not locked. Try the operation again.
CHECK M**	● Changer mode cam is not moved. Try the operation again.
CHECK SHUT	● Changer shutter is not closed. Try the operation again. (*)
DISC Err	● The disc is not loaded with the label side toward you.
DSP NG	● Place the unit away from noise source or plug the AC power lead to another AC socket. (*)
Er-**	● The unit considers the DVD mechanism is defective. (*) ● The amplifier is defective. (*)
ERROR CARRY	● Disc is not carried. (*)
ERROR D**	● Changer drum cam is not moved. (*)
ERROR D INI	● Changer drum initial error. (*)
ERROR LOCK	● Disc tray is not locked. (*)
ERROR M**	● Changer mode cam is not moved. (*)
ERROR M INI	● Changer mode initial error. (*)
FAN LOCK	● The cooling fan on the back of the amplifier unit does not run due to foreign objects caught in it. Set this unit to the stand-by mode and remove the foreign objects around the fan.
NO DISC	● The disc is not loaded.
No Signal	● The digital audio input socket is not connected properly. ● Unspecified signal is received and cannot be recognised.
READ Err	● A read error occurred due to shock, scratches on the disc, etc.

(*): Set the main unit to the stand-by mode and turn the power on again, or unplug and plug it back in. Should the same message appear, contact your authorised SHARP dealer or service centre.

(**): Indicates numbers/symbols.

TV screen	Meaning
	A read error occurred due to shock, scratches on the disc, etc.
	The disc cannot be played with this unit or the disc is loaded in an incorrect way.
	The region number of the DVD is not 2, 3, 4 or ALL.
	A disc has not been loaded.
	● You are trying to perform an incorrect operation. ● The operation is prohibited. ● The disc does not support the operation described in this operation manual.

Troubleshooting chart

Many potential problems can be resolved by the owner without calling a service technician.
If something is wrong with this product, check the following before calling your authorised SHARP dealer or service centre.

■ General

Symptom	Possible cause	Reference page
The power is not turned on.	● Is the unit unplugged?	P. 17
	● Is the system cable connected?	P. 14
No sound is heard.	● Is the volume level set to "0"?	P. 19
	● Are the headphones connected?	P. 57
	● Are the speaker wires disconnected?	P. 15
The sounds from speakers are not well balanced.	● Are the speaker wires connected to the wrong channels?	P. 15
Noise is heard during playback.	● Move the unit away from any computers or mobile phones.	–
When a button is pressed, the unit does not respond.	● Set this unit to the power stand-by mode and then turn it back on. If the unit still malfunctions, reset it.	P. 60
Interference or noise occurs on the TV image.	● Is the unit placed near TV with internal aerial? Use an external aerial.	P. 14
Timer playback does not start.	● Did you remove the plug from the AC socket, or did a power failure occur? Reset the clock and timer.	P. 20, 50
The display on the unit is dark.	● Is the display in the dimmer mode?	P. 19
No images are displayed.	● Is TV turned on?	P. 53
	● Is the TV input switched on?	P. 53

■ DVD/CD player

Symptom	Possible cause	Reference page
Playback sounds are skipped.	● Is the disc very dirty?	–
	● Does the disc satisfy the standards?	–
	● Is the unit located near excessive vibrations?	–
	● Has condensation formed inside the unit?	P. 60
The control buttons do not function. Music or video playback is interrupted.	● Is the disc very dirty?	–
	● Does the disc satisfy the standards?	–
	● Is the unit located near excessive vibrations?	–
	● Has condensation formed inside the unit?	P. 60
Pictures and sound are skipped.	● Is the disc very dirty?	–
	● Is the unit located near excessive vibrations?	–
	● Has condensation formed inside the unit?	P. 60
The system does not operate even if the power is on.	● Is a disc other than a DVD (region number 2, 3, 4 or ALL), SVCD, VCD, audio CD, MP3, WMA or JPEG loaded?	P. 5
Image cannot be played back. (Sound is not heard.)	● Are the video and audio cables connected improperly?	P. 16, 55, 56
	● Is a disc other than a DVD (region number 2, 3, 4 or ALL), SVCD, VCD, audio CD, MP3, WMA or JPEG loaded?	P. 5
	● Is the disc very dirty?	–
	● Is the disc loaded with the label side toward you?	P. 22
	● Is the TV input set to "VIDEO 1/VIDEO 2" etc.?	P. 53
	● Is the unit turned on?	P. 18

■ Tuner

Symptom	Possible cause	Reference page
The radio makes unusual noises continuously.	● Is the unit placed near the TV or computer?	–
	● Is the FM aerial or AM loop aerial placed properly? Move the aerial away from the AC power lead or the unit if located near.	–
The preset channel cannot be recalled.	● Did you remove the plug from the AC socket, or did a power failure occur? Set the channel again.	P. 38

■ Remote control

Symptom	Possible cause	Reference page
The remote control does not operate properly.	● Is the battery polarity respected?	P. 18
	● Are the batteries dead?	–
	● Is the distance or angle incorrect?	P. 18
	● Are there any obstructions in front of the unit?	–
	● Is the remote control sensor exposed to strong light (inverter fluorescent light, direct sunlight, etc.)?	P. 18
	● Is the remote control for another equipment used simultaneously?	–
The unit cannot be turned on with the remote control.	● Is the AC power lead of the unit plugged in?	P. 17
	● Are the batteries inserted?	P. 18
The unit performs unintended operations.	● Is the MODE 1/MODE 2 switch set correctly?	P. 9, 10

Caution:
If a problem occurred, the unit's power turns off and the timer set indicator will start blinking. Contact your authorised SHARP dealer or service centre.

■ Condensation

Sudden temperature changes, storage or operation in an extremely humid environment may cause condensation inside the cabinet (laser pickup, etc.) or on the transmitter on the remote control.
Condensation can cause the unit to malfunction. If this happens, leave the power on with no disc in the unit until normal playback is possible (about 1 hour). Wipe off any condensation on the transmitter with a soft cloth before operating the unit.

■ If trouble occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

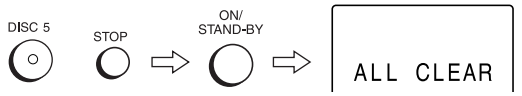
If such a problem occurs, do the following:

1 Set the unit to the stand-by mode and turn the power on again.
2 If the unit is not restored in the previous operation, unplug and plug in the unit, and then turn the power on.

Note:
If neither operation above restores the unit, clear all the memory by resetting it.

Clearing all the memory (reset)

1 Press the ON/STAND-BY button to enter the power stand-by mode.
2 Whilst holding down the DISC 5 button and the STOP button, press the ON/STAND-BY button for 2 seconds or more.
"ALL CLEAR" appears for about 2 seconds and the unit enters the stand-by mode.
3 Press the ON/STAND-BY button again to turn on the unit.



Caution:
When you reset, all data is deleted and the settings return to the default. (DVD initial settings are retained.)

■ Before transporting the unit

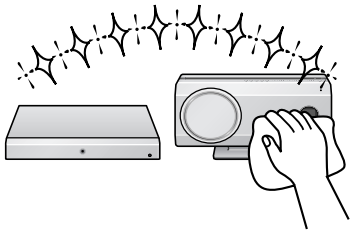
Remove all discs from the unit. Make sure there is no disc in the disc compartment. Then, set the unit to the power stand-by mode. Carrying the unit with discs left inside can damage the unit.

Maintenance

■ Cleaning the cabinet

Periodically wipe the cabinet with a soft cloth and a diluted soap solution, then with a dry cloth.

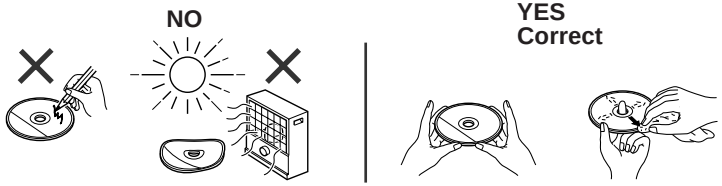
- Do not use chemicals for cleaning (petrol, paint thinner, etc.). It may damage the cabinet finish.
- Do not apply oil to the inside of the unit. It may cause malfunctions.



■ Care of discs

Discs are fairly resistant to damage, however mistracking can occur due to an accumulation of dirt on the disc surface. Follow the guidelines below for maximum enjoyment from your disc collection and player.

- Do not write on either side of the disc, particularly the non-label side from which signals are read. Do not mark this surface.
- Keep your discs away from direct sunlight, heat, and excessive moisture.
- Always hold the discs by the edges. Fingerprints, dirt, or water on the discs can cause noise or mistracking. If a disc is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the centre, along the radius.

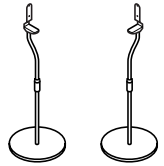


Optional accessory

Use only the specified optional accessory to operate this product properly.
For speaker installation, read instructions supplied with stands.

FLOOR SPEAKER STAND

Model: AD-AT12ST



The appearance of optional accessory may differ from the illustration above.

Specifications

As part of our policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

■ Main unit (DVD player unit)

Dimensions	**Including the stand**	Width: 430 mm (16-15/16") Height: 228 mm (9") Depth: 150 mm (5-15/16")
	Excluding the stand	Width: 430 mm (16-15/16") Height: 195 mm (7-11/16") Depth: 86 mm (3-7/16")
Weight	DVD player unit: 3.0 kg (6.6 lbs.) Stand: 0.8 kg (1.8 lbs.)	
Video output terminals	Video output: RCA type × 1 S-video output: S-terminal × 1 Component video output: RCA type × 3 (Y/PB/PR)	
Other terminals	System control × 1	
Signal system	PAL/NTSC colour	
Supported disc types	DVD-Video (region number 2, 3, 4 or ALL), DVD-R/RW (video mode), SVCD, VCD, audio CD, CD-R, CD-RW	
Video signal	Horizontal resolution: 500 lines S/N ratio: 65 dB	

■ Amplifier unit

Power source	AC 220 V - 240 V, 50/60 Hz
Power consumption	Power on: 87 W Power stand-by: 1.0 W
Dimensions	Width: 430 mm (16-15/16") Height: 60 mm (2-3/8") Depth: 321 mm (12-11/16")
Weight	3.9 kg (8.6 lbs.)
Speaker terminals	Front speakers, centre speaker, surround speakers and subwoofer: more than 4 ohms
Audio output terminals	Headphones: 16 - 50 ohms (recommended: 32 ohms) Optical digital output: Square type × 1 Audio output (VCR): RCA type × 1 pair (L/R) Subwoofer Pre Out: RCA type × 1
Audio input terminals	Audio input (TV, VCR): RCA type × 2 pairs (L/R) Coaxial digital input: RCA type × 1 Optical digital input: Square type × 1
Other terminals	System control × 1
Amplification system	5.6448 MHz (128 fs) 1-bit switching (remarks: fs = 44.1 kHz)
Rated power output	Front: 100 W + 100 W (4 ohms at 1 kHz) (10% T.H.D.) Centre: 100 W (4 ohms at 1 kHz) (10% T.H.D.) Surround: 100 W + 100 W (4 ohms at 1 kHz) (10% T.H.D.) Subwoofer: 100 W (4 ohms at 100 Hz) (10% T.H.D.)
A/D noise shaping	7th-order $\Delta\Sigma$ (delta - sigma) modulation
Frequency characteristics	Linear PCM DVD: 4 Hz to 22 kHz (sampling rate: 48 kHz) 4 Hz to 44 kHz (sampling rate: 96 kHz) CD: 4 Hz to 20 kHz
S/N ratio	CD: 96 dB (1 kHz)
Dynamic range	Linear PCM DVD: 95 dB CD: 94 dB
Total harmonic distortion ratio	0.006 % maximum
Frequency range	FM: 88 - 108 MHz AM: 531 - 1,602 kHz

■ Front speaker

Type	Twin-drive speaker system (magnetically shielded) 8 cm (3-1/8") speaker × 2
Maximum input power	100 W
Impedance	4 ohms
Dimensions	Width: 168 mm (6-5/8") Height: 195 mm (7-11/16") Depth: 81 mm (3-3/16")
Weight	1.5 kg (3.3 lbs.)/each

■ Surround speaker

Type	Twin-drive speaker system (magnetically shielded) 8 cm (3-1/8") speaker × 2
Maximum input power	100 W
Impedance	4 ohms
Dimensions	Width: 168 mm (6-5/8") Height: 195 mm (7-11/16") Depth: 81 mm (3-3/16")
Weight	1.5 kg (3.3 lbs.)/each

■ Centre speaker

Type	Twin-drive speaker system (magnetically shielded) 8 cm (3-1/8") speaker × 2
Maximum input power	100 W
Impedance	4 ohms
Dimensions	Width: 430 mm (16-15/16") Height: 100 mm (3-15/16") Depth: 81 mm (3-3/16")
Weight	1.7 kg (3.8 lbs.)

■ Subwoofer

Type	Single speaker system 16 cm (6-1/2") woofer × 1
Maximum input power	100 W
Impedance	4 ohms
Dimensions	Width: 300 mm (11-13/16") Height: 295 mm (11-5/8") Depth: 359 mm (14-3/16")
Weight	6.2 kg (13.7 lbs.)

SHARP

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UP

DOWN

SD-AS10W

1-BIT DIGITAL HOME THEATER WITH DVD

SHARP